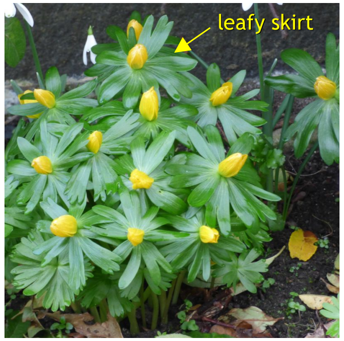
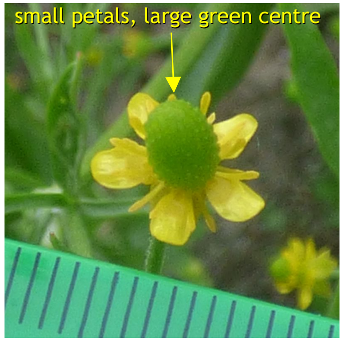
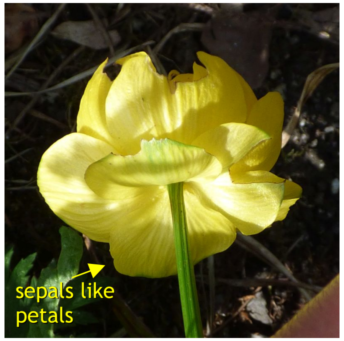
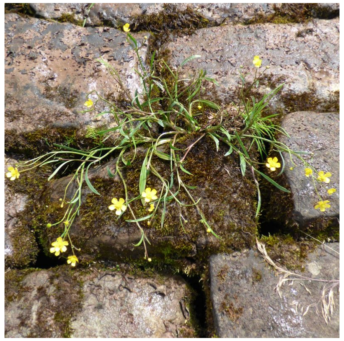
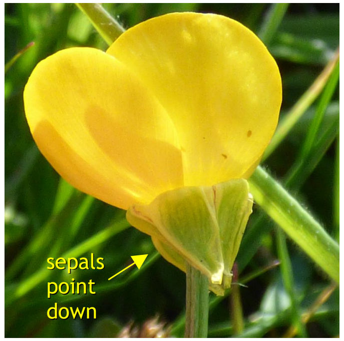
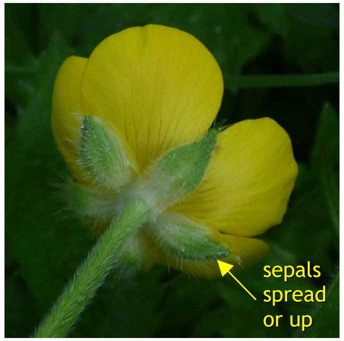
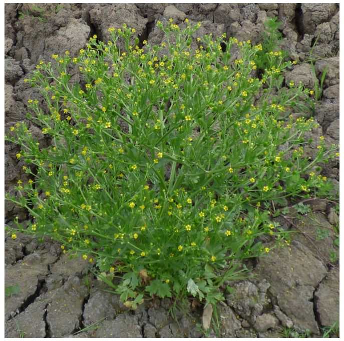
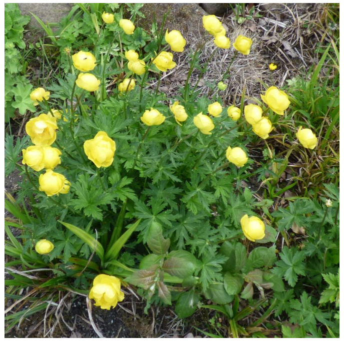
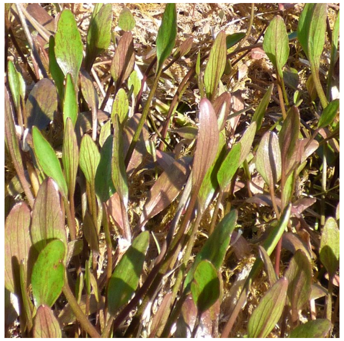
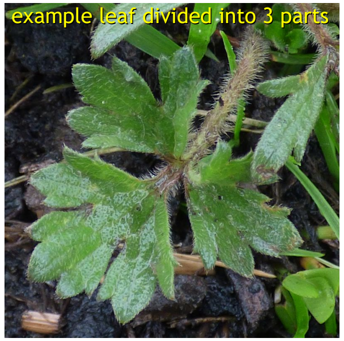
Buttercups (Britain and Ireland) - Ranunculus (yellow), Ficaria, Caltha, Eranthis

Info : 2022-07-23 ● Contact (FB) ● Latest PDF ● Folder of all Publications

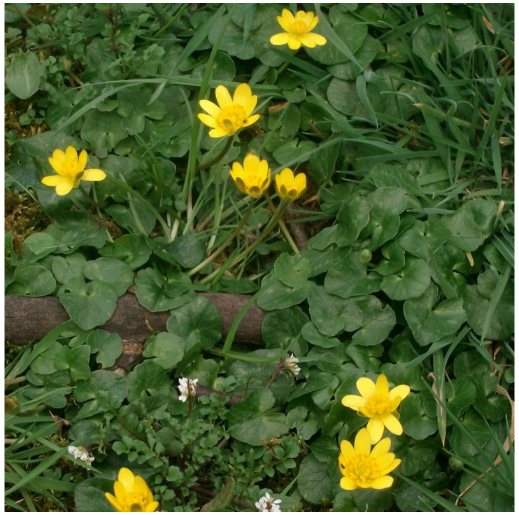
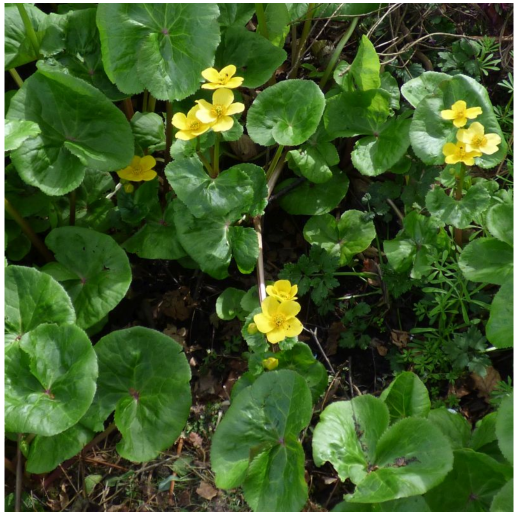
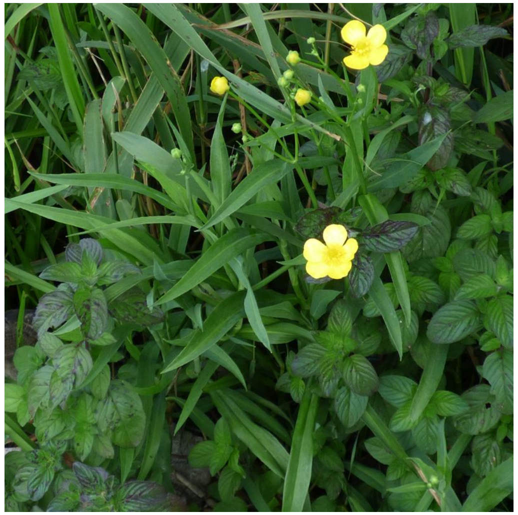
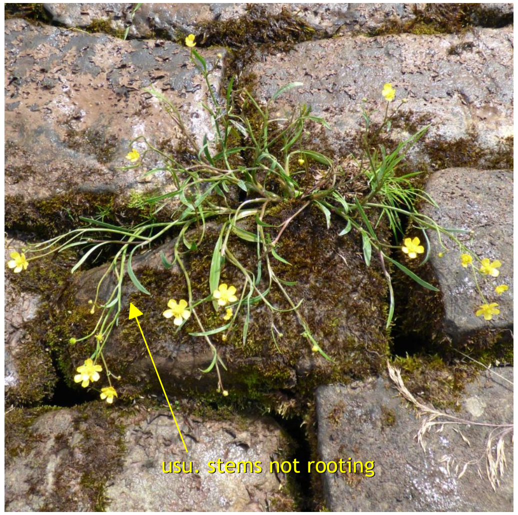
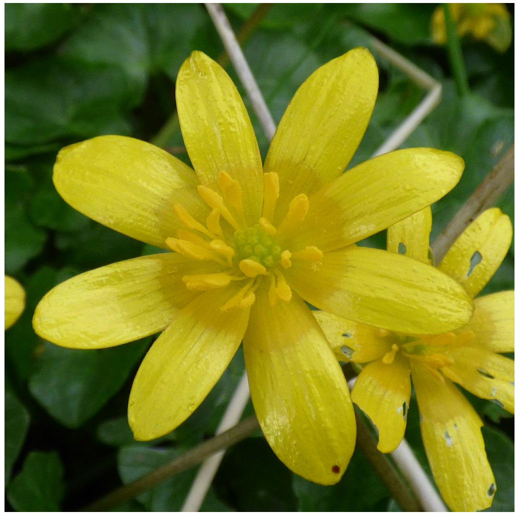
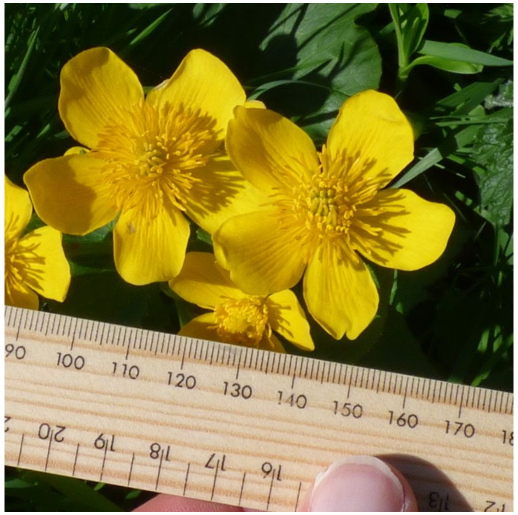
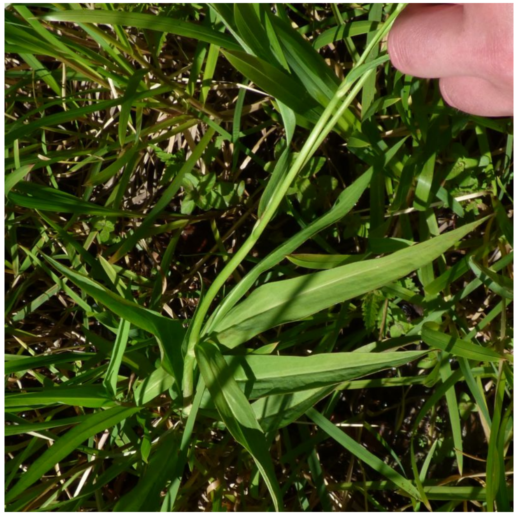
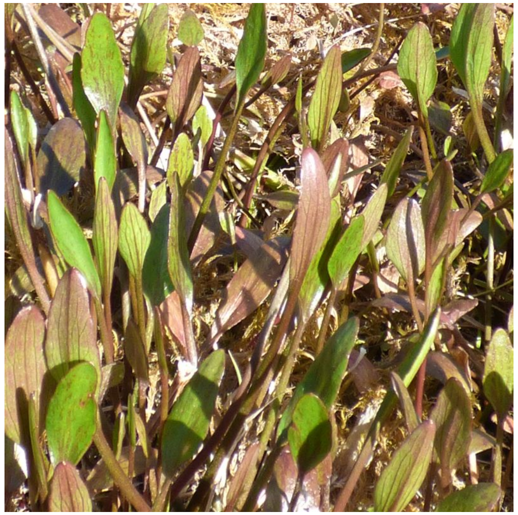
THIS IS A DRAFT BEING REGULARLY UPDATED

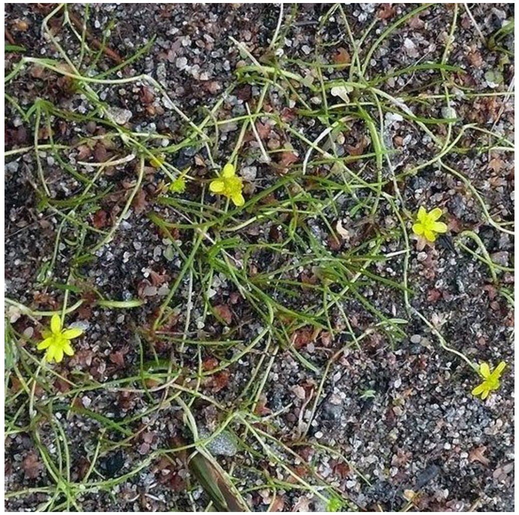
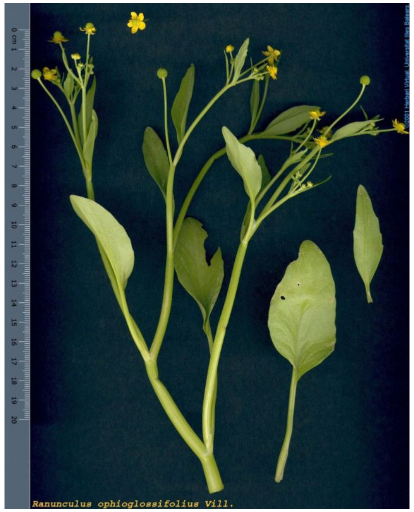
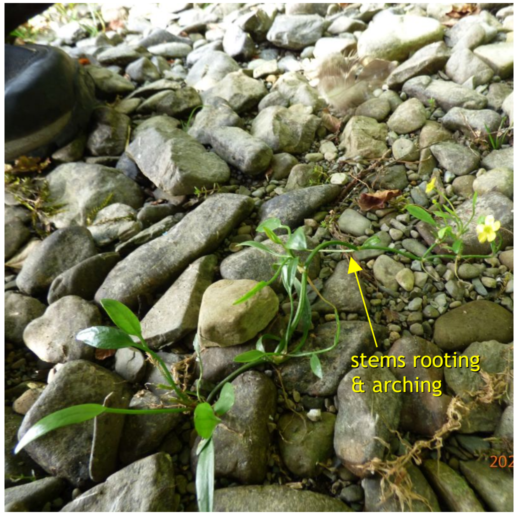
Diagnostic Charts to Species Level

● METHOD : Work from left to right below and when you have a match jump to the species or section indicated. For the stem leaves ignore the uppermost and base ones (which are not stem leaves). Later in the document there is information on taking the species to subspecies level.

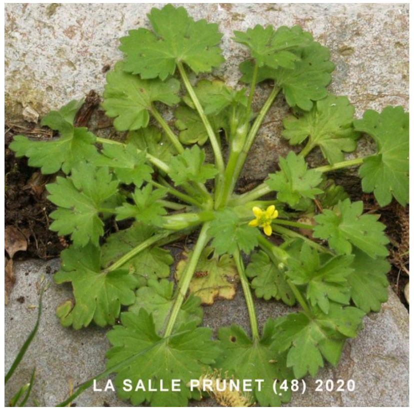
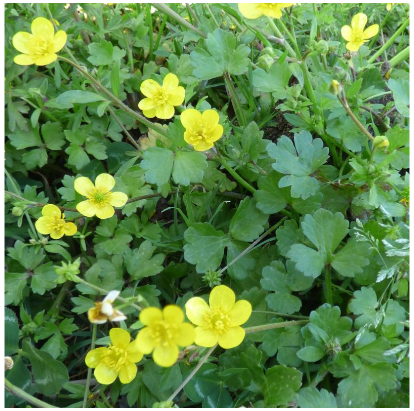
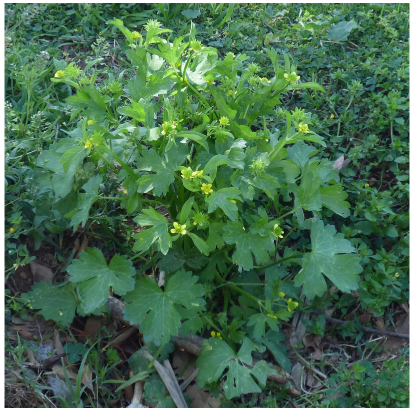
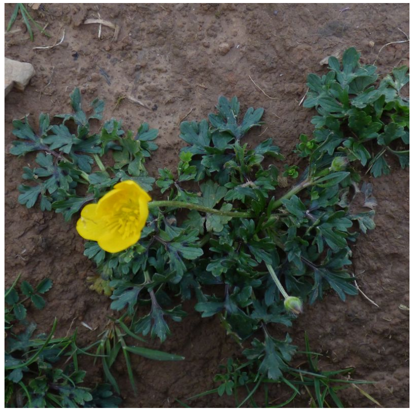
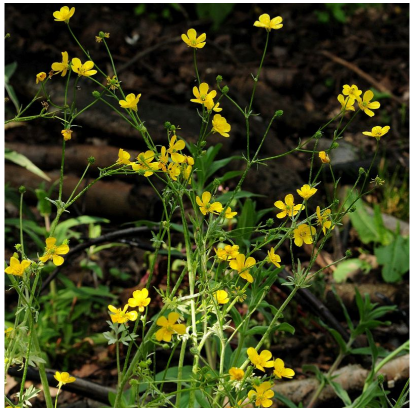
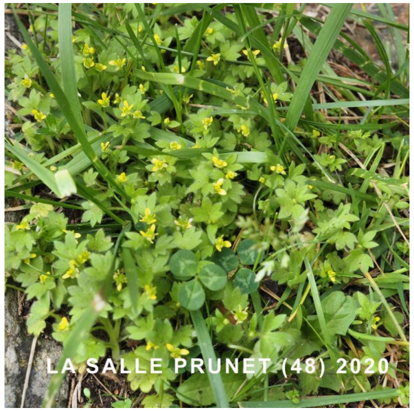
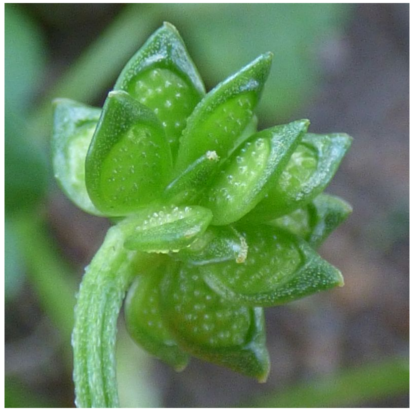
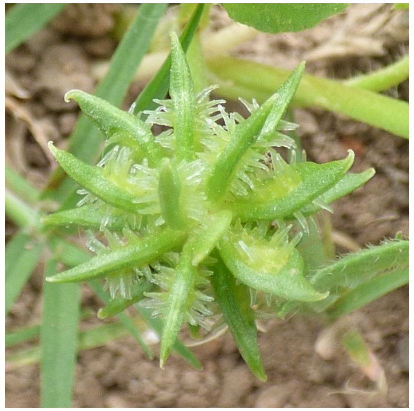
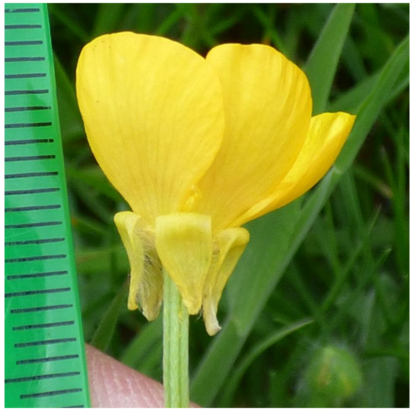
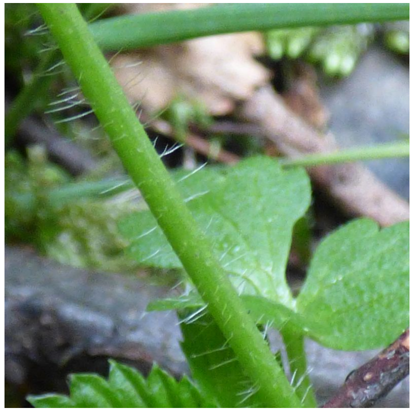
Flowers sit on a skirt of divided leaves. Photos.	Small petals dominated by green domed centre. (Leaf edges blunt, base leaves large/spreading, plant upright, size varies). Photos.	Sepals appear absent (looking the same as petals), flowers a scarcely-open ball of petals. (Leaves hairless, lobes serrated; cultivars may have orange flowers.) Photos.	Undivided leaves (toothed or not). (NB: A volume of tape-like aerial leafage will likely be the lobed leaves of Goldilocks: Photos).	Sepals point fully down (reflexed) Leaves for this and the next are cut deeply or fully into parts occ. shallowly. (The parts in turn usually have deep cuts.)	Sepals not downwards (spreading / upright)
Winter Aconite *(Eranthis hyemalis)*	Celery-leaved Buttercup *(Ranunculus sceleratus)*	Globeflower *(Trollius europaeus)*	Section: "Unlobed Leaves"	Section: "Sepals Reflexed"	Section: "Sepals Spreading"
					
					

Unlobed Leaves

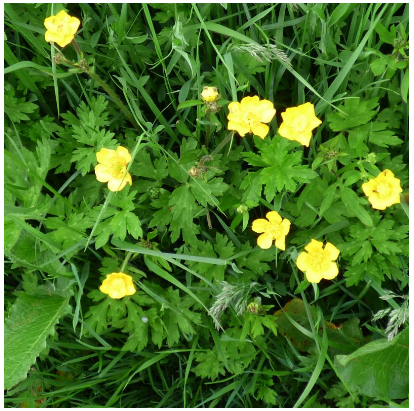
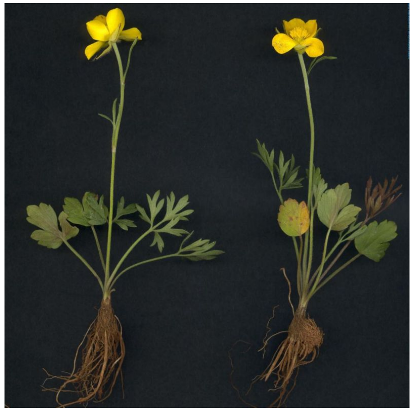
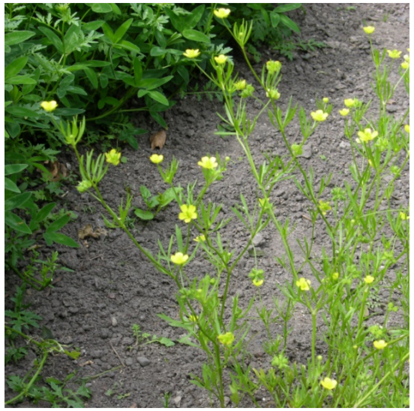
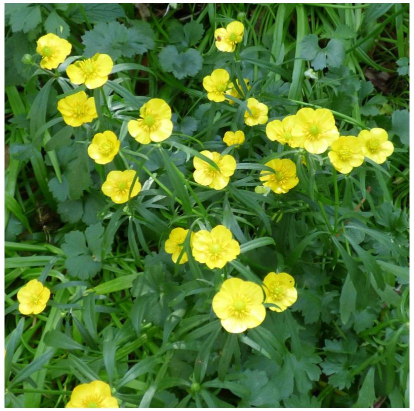
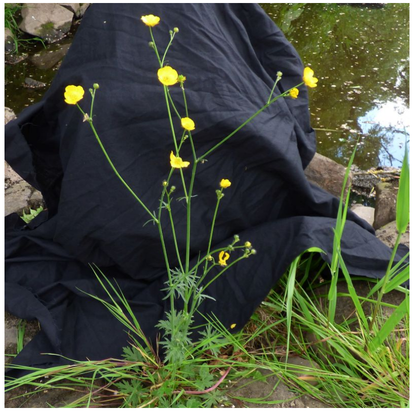
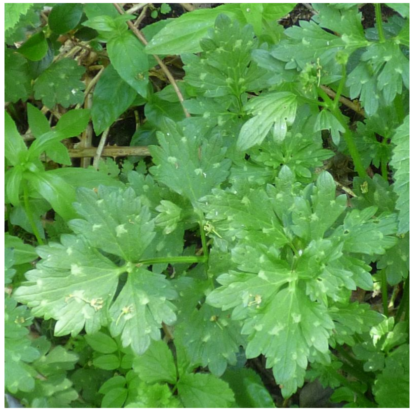
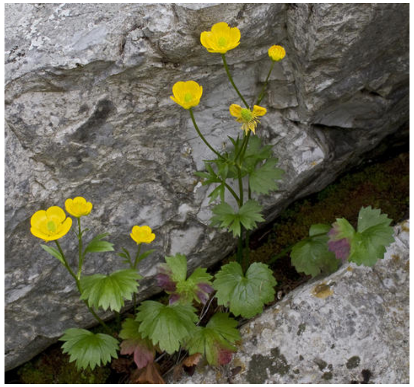
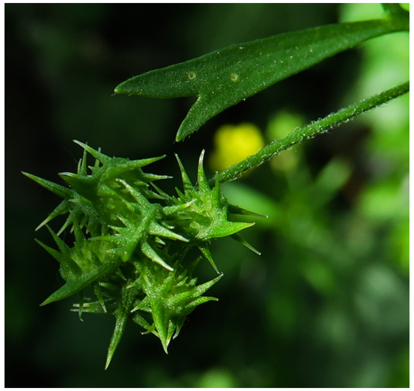
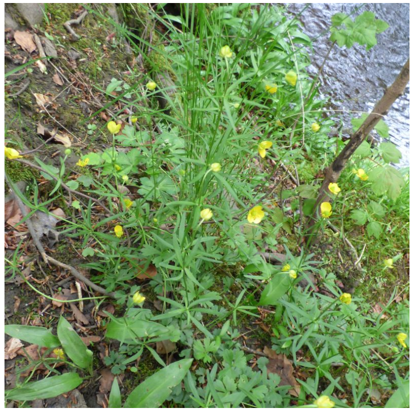
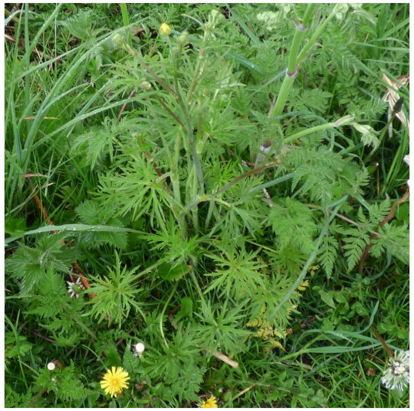
Round leaves with ingressed bases		Large narrow leaves (to 25 cm)	Mid to small leaves
Many (8+) petals. (Petal undersides are often darker as here; leaves usually moderate-sized, to 4 cm.) Photos ● See subtaxa	Petals c. 5, large. (Flowers to 5 cm; occasionally more petals; leaves are often large.) Photos ● See subtaxa	Plant upright, reaching a good height. Large flowers. (Flowers to 2-5 cm; larger fruit at 2.5 mm; unfurrowed flower stalk; stem leaves stalkless.) Photos	Leaves to 5 cm, widen at middle, average size flowers, multiple per stem; stem may root near base (var. tenuifolius along stem, see under R. x levenensis). (Flowers 1-2(.5) cm; smaller Fruit 1-2(.3) mm, smooth; furrowed flower stalk; petals usually overlap.) Photos ● See subtaxa
Lesser Celandine	**Marsh-Marigold**	**Greater Spearwort**	**Lesser Spearwort**
Ficaria verna	*Caltha palustris*	*Ranunculus lingua*	*Ranunculus flammula*
			
			

Thread-like leaves (1.2 mm) Flowers tiny to 5 mm, solitary Roots at all leaf junctions Two Scottish Loch shores (NB: R. x levenensis is commoner!) Photos Pic 1 - luontoportti.com (Jouko Lehmuskallio)	Flowers 5-9 mm, petals don't overlap; broad lower leaves like spades. (Fruit warty.) By two ponds in Gloucester Photos. Pic 1 - herbarivirtual.uib.es	Hybrid intermediate between R. flammula-and R. reptans: roots at all up to or including the end nodes, flowers solitary (6-15 mm, petals 3-4 mm wide); sandy/stony lochsides. (cf. R. flammula var. tenuifolius.) Photos.	
Creeping Spearwort	**Adder's-Tongue Spearwort**	**Loch Leven Spearwort**	
Ranunculus reptans	*Ranunculus ophioglossifolius*	*Ranunculus x levenensis* = *R. flammula x R. reptans*	
			

Sepals Reflexed (Lobed Leaves)

Lower leaf with broad parts, themselves somewhat shallowly cut; usually lacks stalk for middle part			Parts of leaf are themselves strongly cut, middle part usually stalked	
Flower tiny (3-5 mm) & hairy. Plant not upright. Photos Pic 1&2 - naturescene.net	Flowers stand out clearly (15-30 mm - or less!), on long stalks (esp. when fruiting), a somewhat hairy plant. (Fruit with bumps - pic!) Scilly Isles & scattered Photos	Flowers small looking (10+ mm) and very gappy (petal bases usually not touching); plant scarcely hairy. (Fruits spiny-looking - pic!) Cornwall, Scilly & scattered Photos	Flowers strong yellow, 20-30 mm, petals overlapping Stem appressed hairy above plant just below ground usu. has a pale chestnut-like swollen root (Photo). Photos ● See subtaxa	Flowers pale yellow, 12-25 mm, petals fairly gappy Stem hairs usually projecting above, annual habit without swollen root Bulbous has - otherwise similar to Bulbous. Photos (pic 1 Lilam Rooney)
Small-flowered Buttercup	**St. Martin's Buttercup**	**Rough-fruited Buttercup**	**Bulbous Buttercup**	**Hairy Buttercup**
Ranunculus parviflorus	*Ranunculus marginatus*	*Ranunculus muricatus*	*Ranunculus bulbosus*	*Ranunculus sardous*
				
				

Sepals Erect

Wide leaf sections (incl. base)	Wide leaf sections seen	Narrow segments for stem-leaves		
All main leaves wide with clearly 3 parts, all divisions rather blunt-looking. White patches are usually noticeable, often prominently. Photos ● See subtaxa	Many leaves undivided like fans or little divided, may be combined with wide well-divided leaves. Jersey & 1 rec Ireland Photos Pic 1 - herbarivirtual.uib.es Pic 2 - floraofgibraltar.myspecies.info (Leslie Linaries)	Leaf segments narrow & strict Flowers small (4-12 mm) Fruits spiny (pic) Photos Pic 1 - biopix.com (N Sloth) Pic 2 - monde-de-lupa.fr (Paul Montagne)	Leaf segments tape-like, airy and erratic Flowers 15-25 mm Predominent look a diffuse airy area of lax tape-like out-of-plane segments when plants of reasonable size (Many petals malformed/missing) Photos ● See subtaxa	Leaves (stem, base) well-divided into many narrow segments radiating in a circle with pointy ends (not bending out of plane) Photos ● See subtaxa
Creeping Buttercup	**Jersey/Fan-Leaf Buttercup**	**Corn Buttercup**	**Goldilocks Buttercup**	**Meadow Buttercup**
Ranunculus repens	*Ranunculus paludosus*	*Ranunculus arvensis*	*Ranunculus auricomus*	*Ranunculus acris*
				
				

Subtaxa - Distinguishing Different Forms

Drawn from various sources (see end references).

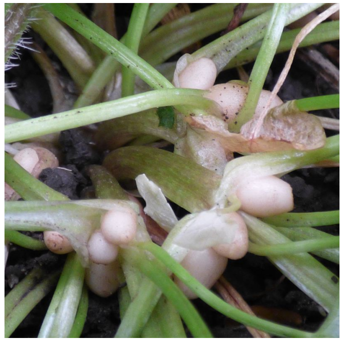
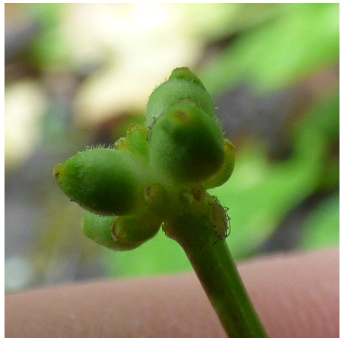
In alphabetical latin order : Marsh-Marigold (Caltha Palustris), Lesser Celandine (Ficaria verna), Meadow Buttercup (Ranunculus acris), Goldilocks Buttercup (Ranunculus auricomus), Bulbous Buttercup (Ranunculus bulbosus), Lesser Spearwort (Ranunculus flammula), Greater Spearwort (Ranunculus lingua), St. Martin's Buttercup (Ranunculus marginatus), Creeping Buttercup (Ranunculus repens), Hybrids.

Marsh-Marigold (Caltha Palustris)

subsp. palustris

> **var. palustris** - The standard form. Photos Map.
>
> **var. radicans** - Stems spreading low on the ground, rooting along their length with few branches and only 1 flower each (Uplands), and with rather triangular leaves. It is important to check rooting along the stems as var. palustris in uplands may otherwise look like var radicans. Photo Map.
>
> **var polypetala** ("Giant Kingcup") - Generally taken as synonymous to subsp. palustris - "Doubtfully distinct from the widespread and Polymorphic C. palustris L., which technically differs in its fewer, usually broader, perianth segments" (Flora of Turkey, vol 1). Photo Photo Map.
>
> **var. alba** - White Flowers (escaped garden forms may have pale or white flowers). Photos.
>
> **pleno flore** - Flowers a ball of petals - Photos.

Lesser Celandine (Ficaria verna)

Tubers at the leaf stalks	Abortive fruits	Dark leaves for eg Brazen Hussy			
					

In the following (see pictures above), "tubers" are little pale eggs you can see at the bottom of the leaf stalks after the flowering season, which are a non-flowering way of reproducing. They are very obvious if you part the foliage so you can peer in to the flower base, but won't be present if you look too early. At the same time you can check how the fruits have formed.

The last two subspecies here have obviously large flowers compared to the widespread forms encountered, the first has smaller flowers obvious when you start to look out for them, however it's also quite normal for any individual flower to produce small flowers, particularly at the season ends.

subsp. verna - Tubers, fruits abort (0-6 well-formed per head), flowers small (most petals < 15 mm), pollen mostly empty - WIDESPREAD. Map.

subsp. fertilis - No tubers, fruits normal, flowers medium (petals 10-20 x 4-9 mm) - WIDESPREAD. Map.

subsp. ficariiformis - Tubers, fruits normal, flowers large (petals 17-26 x 4-12 mm), pollen mostly full - records scattered S half of Britain. Map.

subsp. chrysocephala - No tubers, fruits normal, flowers large (petals 18-25 x 9-15 mm) - records almost all far south (to London). Map.

subsp. verna x subsp. fertilis - There are scattered records of this hybrid from cytological surveys- they stand out as being small and weak, leaves more deeply lobed, very small flowers, no seed production and usual lack of tubers. Map.

Some Cultivars -

'Brazen Hussy' - Copper-brown leaves. The most common escapers. Photos.

Aurantiaca group - Flowers orange - Photos.

Randall's White - Flowers are white - Photos.

flore pleno - Flowers a ball of petals. Photo.

Meadow Buttercup (Ranunculus acris)

Useful Reading : Watsonia 8 p237 (R. acris in Europe).

Accounts differ taxonomically in whether var. villosus/pomilus are of subsp. acris or of subsp. borealis.

subsp. acris - The standard form, tall and branchy, base leaves heavily divided with overlaps, veins prominent on underside, any hairs <1.2 mm. Universal across Britain. Map.

- **'Flore Pleno'** - Flowers are a ball of petals (escapee) - Photos Map.

subsp. borealis - Shorter (<60cm) and little branchy, base leaves with few non-overlapping divisions, veins not prominent on underside. Map.

- **var. villosus** - Densely hairy leaves (both sides & stalks) and lower stems, hairs >1.2 mm - N Scotland & N & W Ireland. Map.
- **var. pumilus** - Earliest lower stem-leaves almost hairless (later leaves lose this quality)- Cairngorms. Map.

Sell & Murrell have:-

subsp. acris -

- **var. filiformis** - Plant with few to no hairs, leaf segments fine (to 3 mm)
- **var. multifidus** - Lower stem and leaves with few to no hairs, leaves to 6 x 8 cm
- **var. acris** - standard form, plant hairy, leaves to 2-6 cm
- **var. rectus** - stems with few adpressed hairs, leaves 8-14 cm, lobes/segments broad
- **var. tomophyllus** - numerous to dense spreading hairs below

subsp. borealis -

- **var. pumilus** - lower stem hairless or with adpressed hairs, basal leaves blunt segments glossy fleshy hairless, leaf stalks no to few hairs, plant short (5-20 cm)
- **var. villosus** - lower stem densely hairy (spreading/deflexed) 1.2-1.6 mm, base leaves thin unglossy densely hairy both sides and stalks, plant 10-50 cm.
- **var. friesianus** - Lower stem and base leaves densely hairy (0.6-1.2 mm)

Goldilocks Buttercup (Ranunculus auricomus)

Because this plant is able to reproduce asexually, hence the malformed flowers, it is composed of perhaps about 100 microspecies that however have not been properly studied. Sell & Murrell vol. 1 cover particularly the Cambridgeshire area.

Bulbous Buttercup (Ranunculus bulbosus)

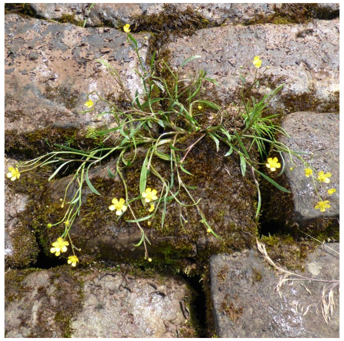
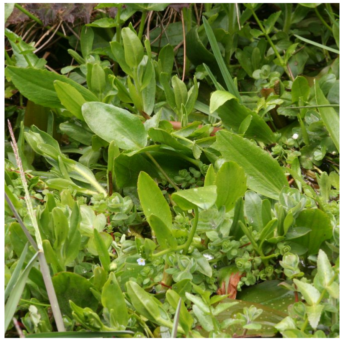
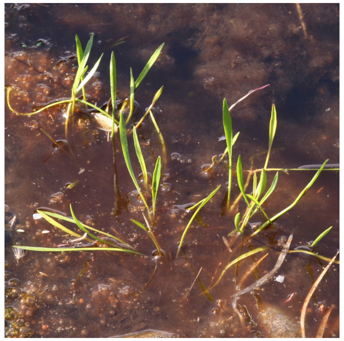
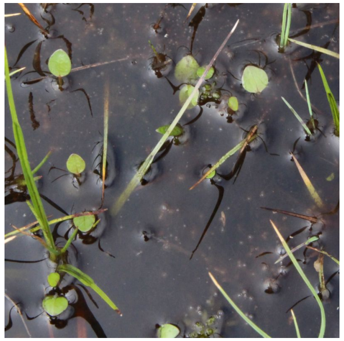
subsp. bulbosus L.

var. bulbosus - The standard form. Map.

var. dunensis - Large flowers (25-30 mm), short stout stems, stems and upper leaves with long white projecting hairs - Records mostly coastal. Map.

Lesser Spearwort (Ranunculus flammula)

Useful Reading : Watsonia 4 p19 (R. flammula) & Watsonia 16 p383 (R. x levenensis).

	Photos 2-5 Richard Lansdown.				
subsp. flammula	ssp flamm. var. major	flower of var. major	subsp. scoticus	subsp. minimus	
					

The standard form encountered in Britain is subsp. flammula var. flammula :-

subsp. minimus - lowest leaves broad with a gap at their base (cordate). Stems do not root; gaps between leaves are small (to 2 cm v 4-7 cm of flammula); thick fleshy leaves. Map.

subsp. flammula - lowest leaves well-developed, narrowing onto their stalks (cuneate) and persisting. Map.

var. flammula - slender non-upright forms, stems root at lower parts, flowers 8-20 mm. (No Map.)

var. major - robust upright forms, 30-60 cm, stems rarely root anywhere, flowers 18-25 mm. Sometimes confused with Ranunculus lingua.

The following 7 forms/variants also appear in the literature but are of weak value -

tenuifolius = radicans= pseudo-reptans = gracilis = var. reptans- rooting irregularly along the entire stem; see the similar R. x levenensis below for discrimination.

- **natans** - grows in running water with long leaf stalks and floating leaves
- **ovatus** - presumably having broadish leaves
- **angustifolius** - with narrow leaves
- **serratus** - toothed
- **submersus** - deep-water state with narrow underwater leaves, barren
- **pilifer** - densely hairy, absent from Britain

subsp. scoticus - lowest leaves thread-like (with no blade) to non-existent, falling early - petals tend to look gappy. Map.

R. x levenensis (R. flammula x R. reptans, "Loch Leven Spearwort") - see photographic diagnostic chart at start, and description below. PDF (Watsonia 1987) ● Map. R. flammula var. tenuifolius is similar but that has a longer fruit beak 18.7% v 11.1% (key!), wider petals 3.3 v 2.5 mm, basal leaves 4.8 v 1.7 mm & stems 1.9 v 1.2 mm - see PDF for finer specifics.

Greater Spearwort (Ranunculus lingua)

Sometimes confused with R. flammula ssp flammula var. major (above). Photos ● Map.

St. Martin's Buttercup (Ranunculus marginatus)

Species - Photos Map.

- **var. trachycarpus** - seeds are warty (tuberculate) - Scilly & far SW England, rare casual elsewhere. Map.
- **var. marginatus** - seeds are smooth - rare casual arising from 'wildflower' seed mixes. Map.

Creeping Buttercup (Ranunculus repens)

Sell & Murrell lists these four:-

var. repens - leaves small, segments broad, usually very hairy, flowers 15-25 mm - the standard form

var. tenuisectus - Leaves small and deeply dissected, rather sparsely hairy

var. erectus - Rather erect and robust, leaves large with very broad segments, very hairy, flowers 25-35 mm

var. degeneratus - Rather erect, very broad dentate segments, flowers double. BSBI map records scattered fairly uniformly south of Edinburgh.

References on the web also suggest -

var. pleniflorus / **var. flore-pleno** - Flower becomes a ball of petals (up to 100-130 petals apparently) with no stamens or carpels, presumably the same as var. degeneratus. Photos.

f. polypetala (many petals), **var. glabratus** (hairless), **var. villosus** (hairy) which represent the natural variety of the species.

I've seen flowers with 9 petals which really stand out and would presumably be referred to f. polypetala.

Hybrids

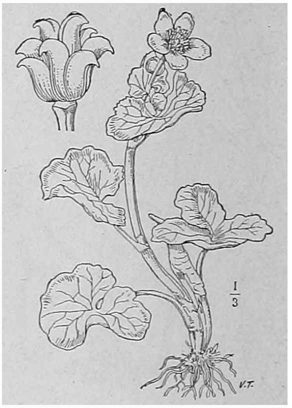
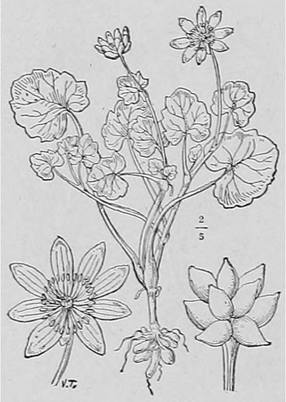
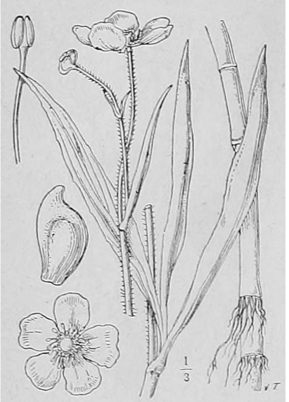
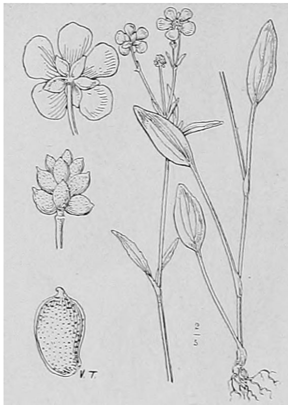
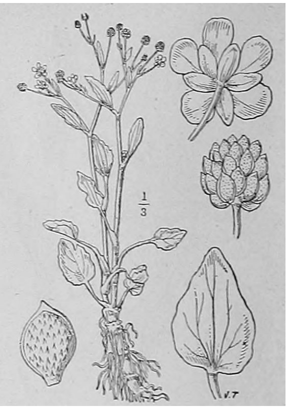
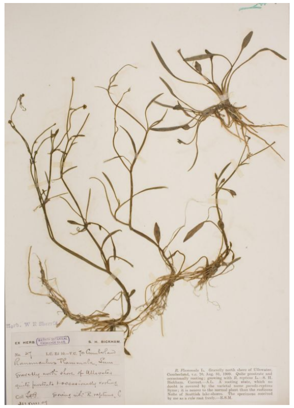
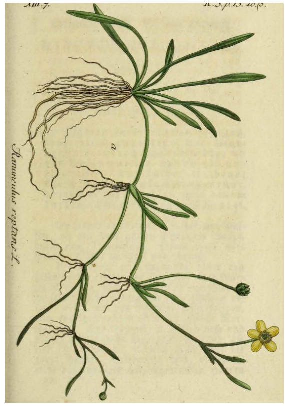
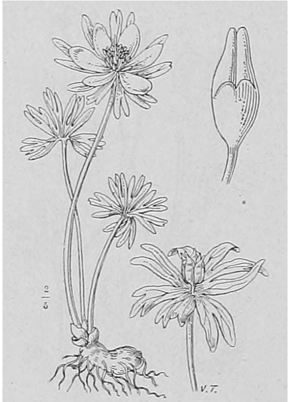
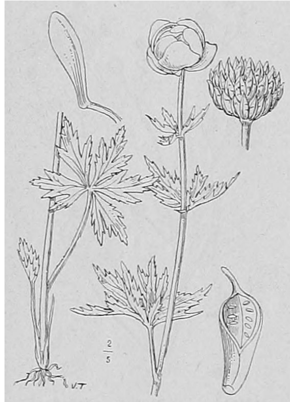
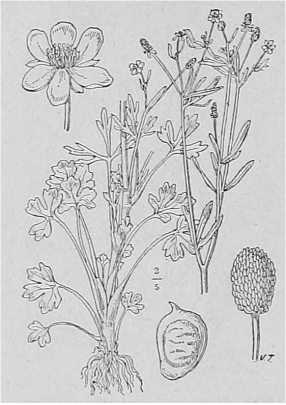
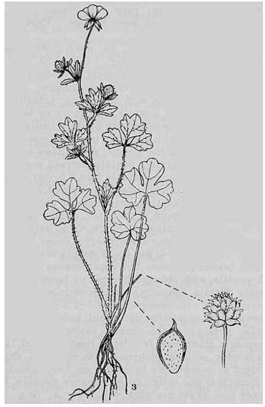
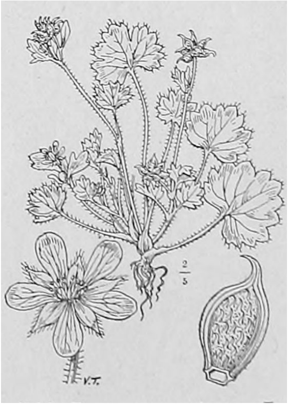
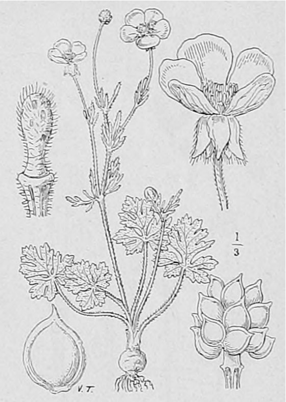
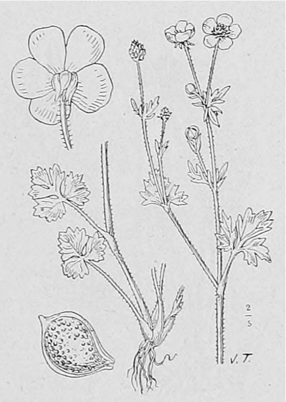
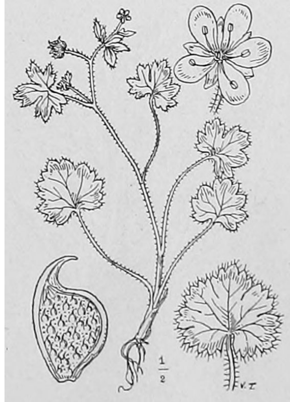
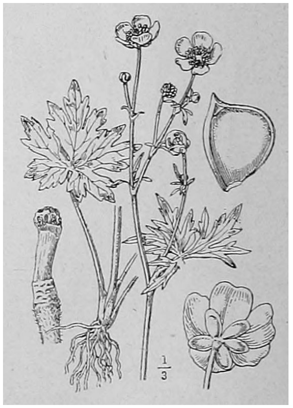
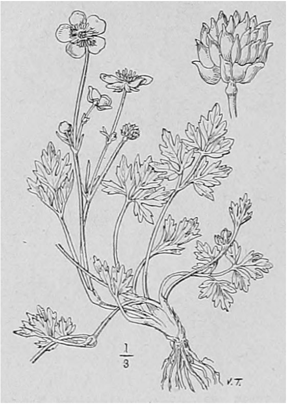
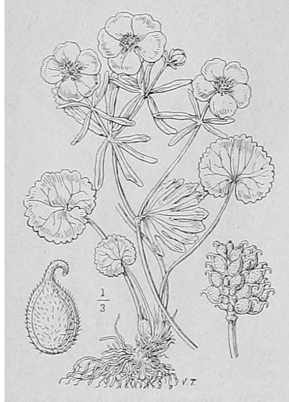
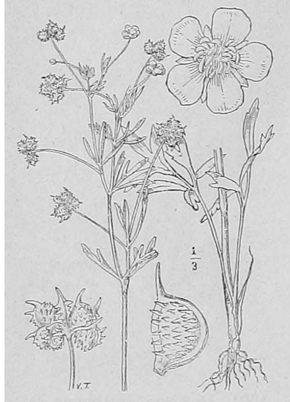
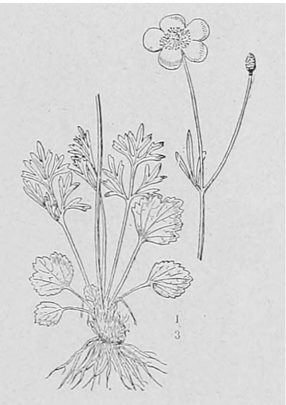
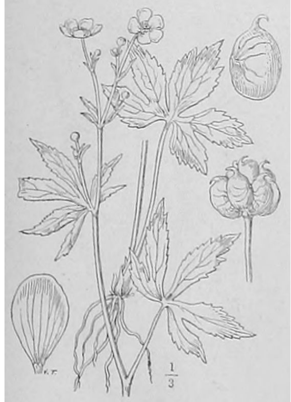
The hybrids have been covered above -

Ficaria verna subsp. verna x subsp. fertilis - see under Ficaria verna.

Ranunculus flammula x reptans = R. x levenensis - see under Ranunculus flammula.

Illustrations

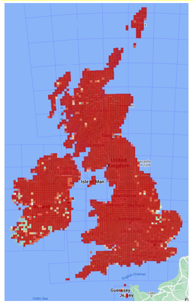
Src: Iconographia floræ italicæ, ossia, Flora italiana illustrata, 1921; x levenensis at herbariaunited.org; R. reptans at [plantillustrations.org as "Deutschlands flora, J & J W Sturm"](plantillustrations.org)

Caltha palustris (Entlre Lvs)	Ficaria verna	R. lingua	R. flammula	R. ophioglossifolia	R. x levenensis	R. reptans
						
Eranthis hyemalis Distinctive	Trollius europaeus	R. sceleratus	R. marginatus (Sepals Down)	R. muricatus	R. bulbosus	R. sardous
						
R. parviflorus	R. acer (Sepals Up)	R. repens	R. auricomus	R. arvensis	R. paludosus	R. iconitifoius (White)
						

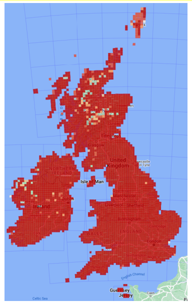
Maps (Britain & Ireland)

Leaves unlobed (yellow) & lobed (pink), in order of prevalence with variants after species. Src BSBI Maps - follow the links above each for the direct original interactive maps.

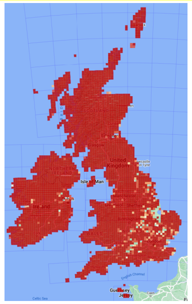
Caltha palustris



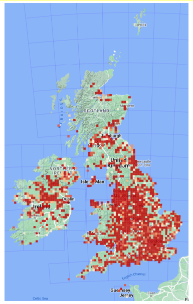
Ficaria verna



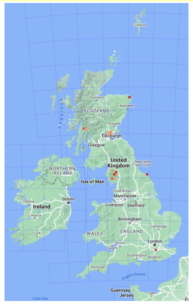
R. flammula



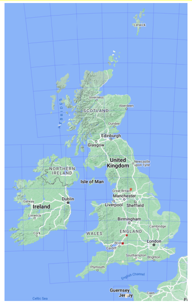
R. lingua



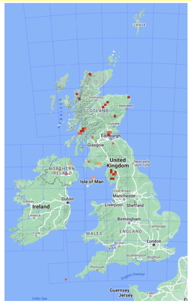
R. reptans



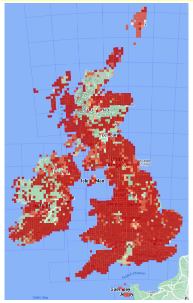
R.ophioglossifolius



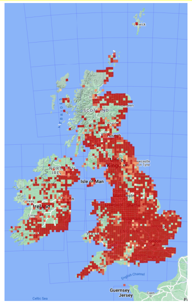
R. x levenensis



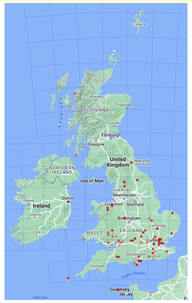
Ficaria verna ssp fertilis



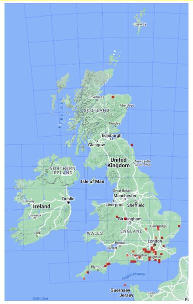
F. verna ssp verna



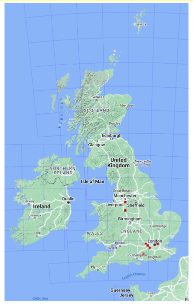
F. verna ssp ficariiformis



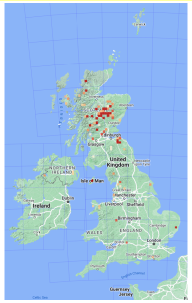
F. verna ssp chrysocephala



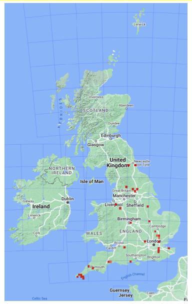
F. verna 'Brazen Hussy'



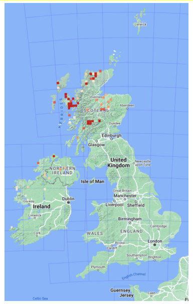
Caltha palustris var radicans



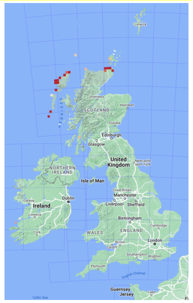
C. palustris var polypetala



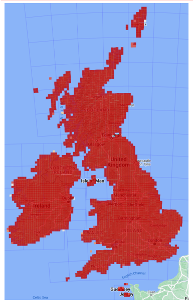
R. flammula ssp scoticus



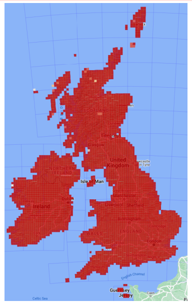
R. flammula ssp minimus



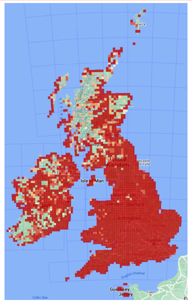
Ranunculus acris



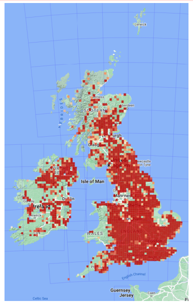
R. repens



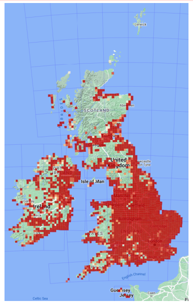
R. bulbosus



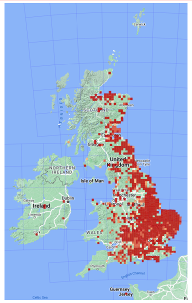
R. auricomus



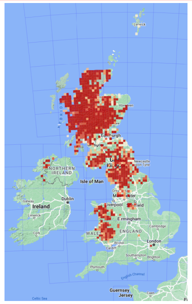
R. sceleratus



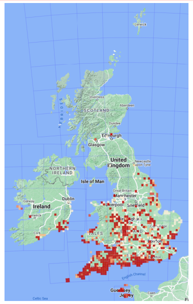
Eranthis hyemalis



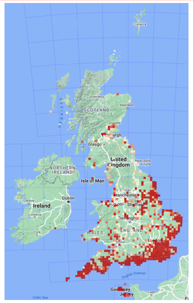
Trollius europaeus



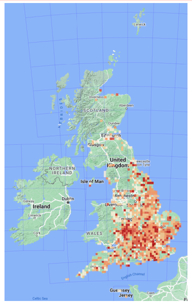
R. parviflorus



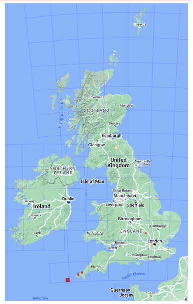
R. sardous



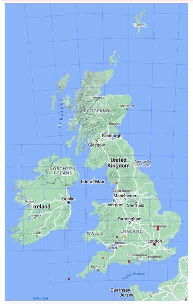
R. arvensis



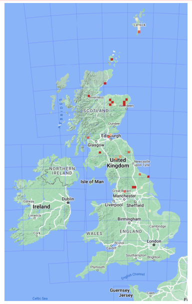
R. muricatus



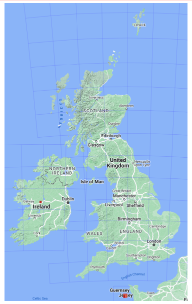
R. marginatus



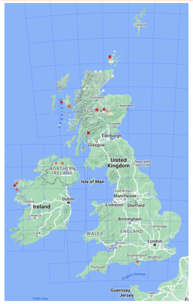
R. aconitifolius (white)



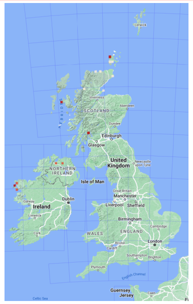
R. paludosus



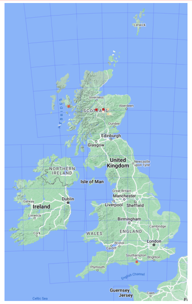
R. acris ssp borealis



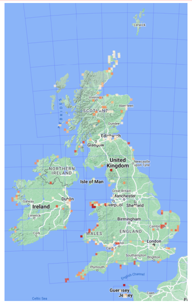
R.acris ssp borealis var villosus



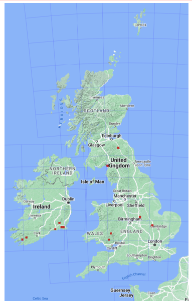
R.acris ssp borealis var pumilus



R. bulbosus var dunensis



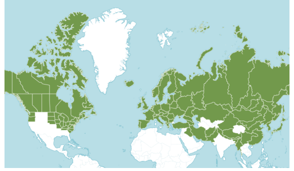
R. repens var degeneratus



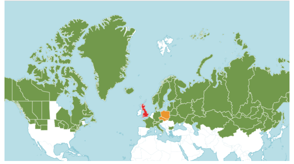
Maps (World)

Note that a species in other parts of the world may be represented by subspecies and forms not in Britain, which have their own maps.
Src: Plants of the World (Kew) - click the linked name to view details and maps.
Colour code : Entire leaves (yellow), distinctive (blue), sepals down (orange), sepals up (pink).

Caltha palustris



R. reptans



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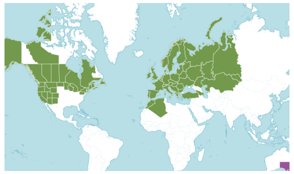
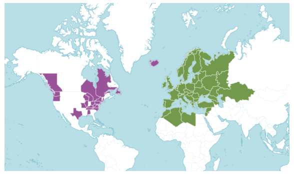
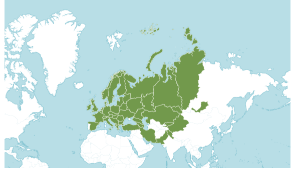


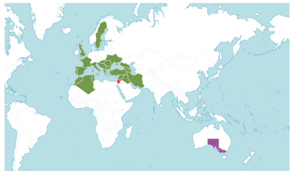
F. verna



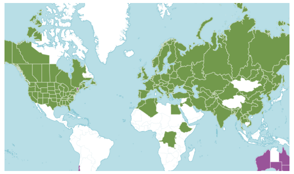
R. lingua



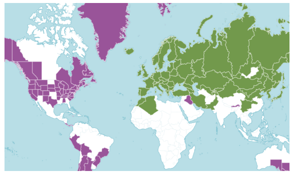
R. ophioglossifolius



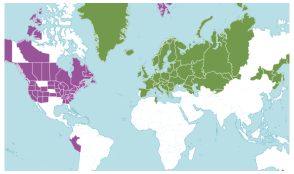
R. sceleratus



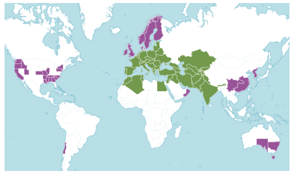
R. repens



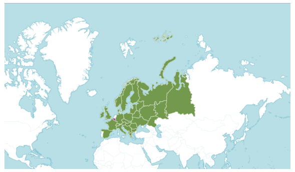
R acris



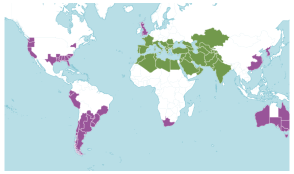
R. arvensis



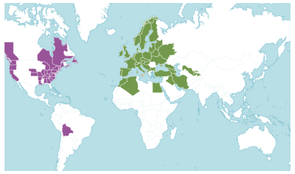
T. europaeus



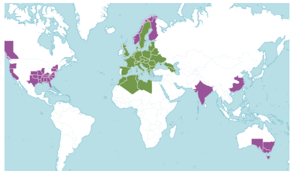
R. muricatus



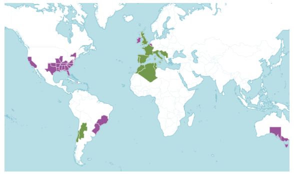
R. bulbosus



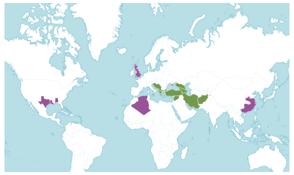
R. sardous



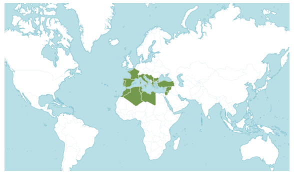
R. parviflorus



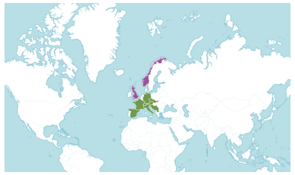
R. marginatus



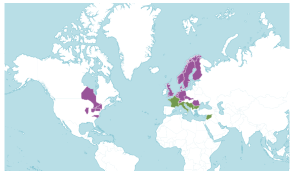
R. paludosus



R. aconitifolius (white)



E. hyemalis



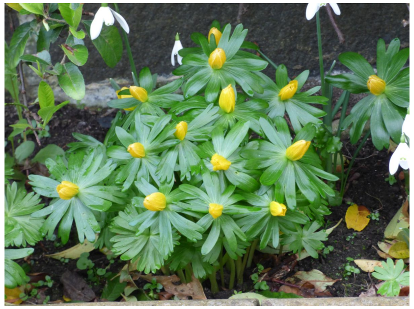
R. auricomus not shown

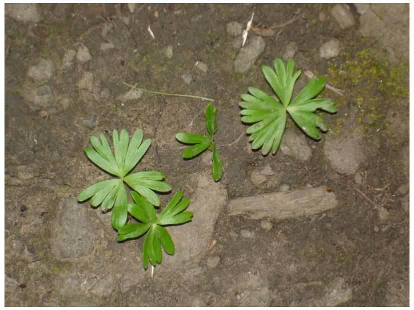
Descriptions from Old Books

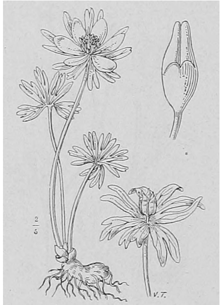
NOTE that being old descriptions there may be details that have been revised; however they provide a wealth of observations that might not otherwise be encountered.

Jump to : (add alphabetical contents here!)

Winter Aconite (Eranthis hyemalis)







1919 BWF vol. 6, p42 (pdf p68)
Winter Aconite (Eranlhis hyemalis, Salisb.). - In the south of England this plant is naturalized in thickets, and occurs in ornamental plantations, parks, and old gardens. The plant has an erect habit, with a tuberous rhizome or underground stem. The radical leaves are rounded, on long stalks, the lobes 5-7, blunt, deeply cut, the lobes oblong, linear, arising from a common centre or palmate. The stem-leaves are in whorls, and form an involucre of stalkless bracts below the flowers, which are single and yellow, cup-shaped. There are 5-8 oblong sepals, which are petaloid, overlapping and falling. The small petals are clawed, and 2-lipped. There are numerous stamens, longer than the petals. The carpels are stalked, 5-6, the follicles being separate, with numerous egg-shaped seeds. The plant is 4-6 in. in height, flowering from January to April, and is a herbaceous perennial.

1914 Boulger, vol. 2, pdf p32
THE WINTER ACONITE. Eranthis hyemalis Salisbury.
An examination of the career of Richard Antony Markham (who took the name of Salisbury after arriving at man's estate), which after this lapse of time is naturally impartial, compels us to recognise that we can more easily respect his talents as a botanist than his character as a man. He seems frequently to have appropriated the results of the work of other botanists and to have hurriedly published descriptions of their discoveries under names of his own devising. This aroused so much feeling against him among his contemporaries that they did less than justice to his undoubted critical acumen. Salisbury was born at Leeds in 1761 and died in London in 1829. He is said to have been descended from Henry Lyte, the translator of Dodoens's "Herball" in the time of Elizabeth. On its foundation he became the first secretary of what is now the Royal Horticultural Society; and for a time he owned the house and garden at Mill Hill which had belonged to Peter Collinson, the correspondent of Linnaeus, and which now forms part of Mill Hill School.
The genus Eranthis was described by him in the "Transactions of the Linnean Society," in 1807, its name being formed from ’ηρ, er, or ’εαρ, ear, Spring, and ’ανθος, anthos, a flower, or more probably from the verb ’ανθιζω, anthizo, I strew with flowers. It comprises some half-dozen species of small herbaceous perennials, natives of the Northern Temperate regions of the Old World. They have a short, thick rhizome, or row of

tubers, to which one is added annually; and the palmately-lobed radical leaves are more delicate in texture than those of the genus Helleborus. Their flowers are solitary, terminal, and pale yellow, and are surrounded at a very slightly lower level with a whorl of three deeply-cleft sessile leaves, which are variously termed an involucre, as in Anemone, or involucriform cauline leaves. There are from five to eight imbricate, narrow, petaloid, and deciduous sepals; while the petals are represented by a few small tubular nectaries or honey-leaves. These have a slender stalk or claw, somewhat as in the Christmas Rose (Helleborus niger Linne), this stalk being as long as the upper tubular part; but this tube is two-lipped, each lip being notched or emarginate. It has been plausibly suggested that the shorter inner lip represents the little scale which in the Buttercup covers over the nectary at the base of the petal, and that in this genus this scale is adnate by its margins to the petal, thus forming a honey-containing tube. It is an interesting fact that in Goldilocks (Ranunculus auricomus Linne) a series of modifications of the base of the petals has been observed, some of which exhibit a bifid inner adnate scale very similar to that in Eranthis; whilst in flowers of the Winter Aconite itself we may often see all kinds of gradations between these tubular petals and the flat, scaleless sepals. The stamens are numerous and spirally arranged; and there are five or six distinct, many-ovuled carpels having a short stalk. These form in the fruit stage a ring of dry follicles splitting down their inner sides so as to discharge the numerous rounded smooth seeds. Eranthis hyemalis Salisbury is a native of Western Europe from Belgium southward; but, though often naturalised in our parks and plantations, or occurring on banks as an escape from cultivation, it has no claim to rank as a truly indigenous British plant. Its flowers appear from January to March, in advance of the radical leaves, but beautifully set off by their glossy green frill-like involucre. Though remaining incurved, the golden sepals expand to an inch or more in diameter; and, as the plants are seldom more than four inches high and grow naturally in a crowded patch, they are thus very conspicuous. There are from six to eight oblong sepals in the calyx, and the petals are much shorter and inconspicuous. At that early season of the year the chief insect-visitor is the honey-bee. The subsequently-developed leaves are long-stalked, orbicular, and deeply cut into from five to seven linear-oblong, obtuse lobes. Poor John Clare, the Northamptonshire peasant-poet, with his usual accuracy of observation, notes the "Buttercup-like flowers that shut at night, / With green leaf furling round its cup of gold" and unquestionably, whether in our gardens or in a quasi-wild state, at a somewhat dull season of the year, the sprightly yellow blossoms and polished foliage form a pleasing harbinger of Spring.

Eranthis luxuriates in moist leaf-mould; and, like its contemporary, the Snowdrop, is tolerant of a considerable amount of shade. It will grow, however, in any soil and is perfectly hardy; but to be effective should certainly be planted in masses. It can be well grown, like Crocuses, Snowdrops, or Daffodils, in lawns, as it will be over early when it is desirable to trim the first Spring growth of the grass.

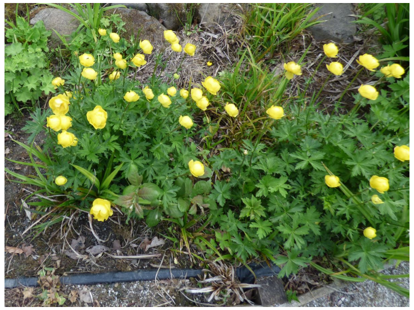
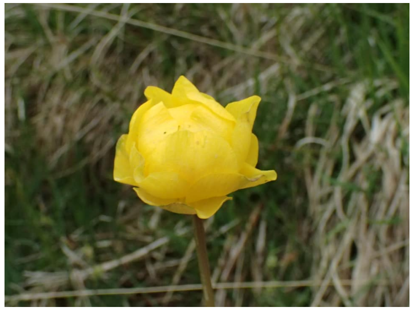
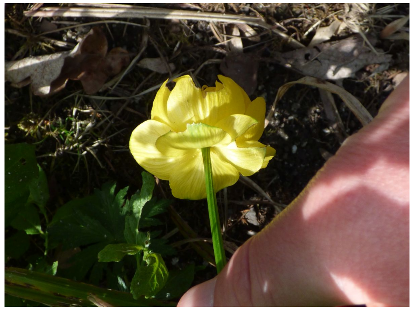
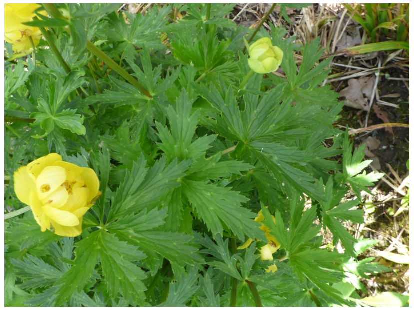
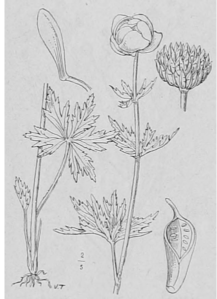
It has been given the name Aconite from the resemblance of its much-lobed leaves to those of that nearly related genus, and it has shared with it the name of Wolf's-bane; and has also been termed Winter Hellebore. It is also stated to be known as Winterling; but, perhaps, it has never been sufficiently well known or valued to receive many genuinely popular appellations.

1905 Pratt

10. Winter Aconite (Eranthis). Common Winter Aconite (E. hyemalis). - Rootstock thick, perennial, creeping underground. Leaves round, divided into 3-5, lobed segments; long-stalked. Involucre of two lobed-bracts beneath the solitary cup-like golden flower, which is nearly an inch and a half across. The numerous stamens are longer than the small petals. This plant attains a height of about six inches, and flowers from January to March. It is not British, but a plant of Western Europe that has got naturalized in plantations here and there.

Globe-flower (Trollius europaeus)

Pic 2 : John Adams, Tarn Sike (Cumbria) 2021.

1919 BWF vol. 6, p138 (pdf p164)

Globe-flower (Trollius europaeus). - The habitat of this plant is subalpine damp mountain pastures, stream-sides, damp meadows, mountain waterfalls, wet rocks on mountains, copses. The habit is erect. The rootstock is short, crowned with rigid fibres. The stem is hairless, simple, leafy. The radical leaves are stalked, nearly round, divided into 5 lobes radiating from the centre, the lobes rhomboidal, wedge-shaped, divided, lobes cut, toothed, the stem-leaves stalkless, not so large. The flowers are globular (hence Globe-flower), bright-yellow. The 10 petals are ligulate, oblong, as long as the stamens. The sepals are 10-15, golden-yellow, round, hollow, forming a globe. The stamens are short. The follicles are transversely wrinkled, keeled, beaked. The seeds are 3-angled, shining, smooth, black, and dotted. The plant is 1-2.5 ft. high, flowering in June and July, and is a herbaceous perennial.

1914 Boulger, vol. 2, pdf p28

Nearly related to the Marsh Marigolds are the Globe-flowers, forming the small genus Trollius. There are about a dozen species; but only one is British, and this is confined to the moist air of the north and west of our islands. On the Continent it is mainly a northern species, and in Scotland it occurs up to altitudes of 3,300 feet, luxuriating in permanently moist soil and well-shaded spots, but not apparently much restricted as to the nature of the sub-soil on which it occurs.

The genus consists of erect perennial herbaceous plants with the short rhizome so frequent in the Family to which it belongs. The leaves are scattered and palmately lobed; and the flowers terminal, large, globular, and yellow or lilac. There are from five to fifteen petaloid sepals, imbricately arranged, incurved, and deciduous, and about as many petals. These are small and narrow, with a very short claw and a strap-shaped blade having a honey-secreting depression at its base. The stamens are very numerous; but the carpels may not exceed five in number. They each contain numerous ovules, which become three-sided seeds with a leathery testa, arranged in two rows.

The origin of the name Trollius is interesting. It is first used, so far as we know, in the sixteenth century, by Conrad Gesner, the many-sided naturalist of Zurich, who has been called "The German Pliny." Another writer says, however, that on Mount Pilatus, near Lucerne, and not very far distant from Zurich, the plant is known as Troll Blume. The word trol is said to be Old German for a globe, being cognate to such words as "trundle," and such an etymology commends itself to our acceptance as being in harmony with most of the other names of the plant. Dr. Prior, however, derives the name from the Swedish troll, Danish trold, Frisian trol, "a malignant supernatural being, a name corresponding to Scotch Witches Gowan and given to this plant on account of its acrid, poisonous qualities." The North-Country names Lucken, or Locken, or Lockenty, Gowan mean the locked or closed golden flower and refer to the incurved perianth-leaves. They are, however, often applied to the Marsh Marigolds, as, perhaps, in Allan Ramsay's lines:- "We'll pull the daisies on the green / The lucken gowans frae the bog."

The earliest record of our British species, Trollius europaus Linne, is apparently Gerard's, in his "Herball" of 1597, where he speaks or "Ranunculus globosus... in most places of Yorkshire and Lancashire"

It is a handsome plant, one or two feet high, with deeply palmately, five-lobed root-leaves, much resembling those of the Common Buttercup, but glabrous, as is the rest of the plant. These root-leaves have long petioles and their segments taper downward with a wedge-like, or cuneate, outline, and a cut and serrated margin. The cauline leaves are few and are smaller and sessile, but otherwise similar. The pale yellow flowers are an inch or an inch and a half in diameter and are slightly scented. The orbicular, concave sepals nearly conceal the petals and, as they never open out to any great extent, the stamens and carpels are protected by them. In wet weather the flower closes still more, and at no time are insect-visitors very numerous. As the flower is homogamous or synacmic, i.e. the stamens and stigmas maturing simultaneously, it is probably very frequently self-pollinated.

The follicles are transversely wrinkled and have a keel, and a beak-like apex; and the three-sided seeds are smooth, black, and polished, but have rows of fine dots along their tough outer coats. The smoothness of such seeds, perhaps, facilitates their escape from the shrivelling ripe follicles; whilst the tough, polished testa prevents water from resting on them, and so protects them alike from rotting or from too early germination. The plant flowers in June, July, and August, so that its fruit ripens in early autumn; but germination does not usually occur until the spring.

Both this species and several of its congeners, such as T. asiaticus Linne and T. caucasicus Stevens, are cultivated as hardy herbaceous plants for the sake of their flowers. Much as they resemble the genus Ranunculus, they, like the Marsh Marigolds, are at once distinguished by their many-seeded carpels, which, as we have seen, form dehiscent follicles instead of indehiscent achenes.

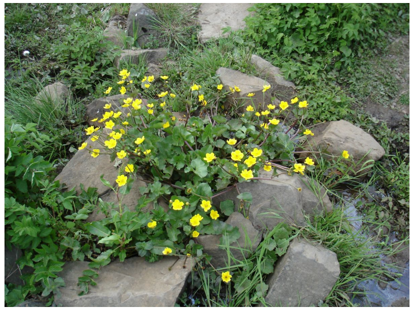
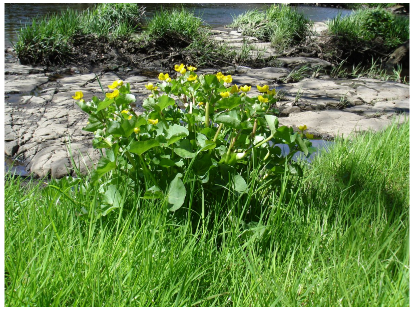
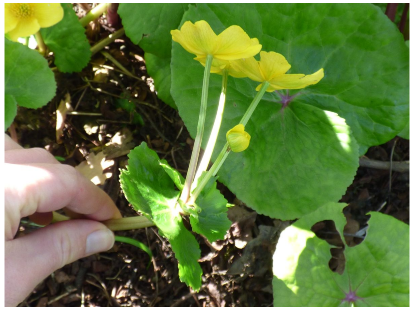
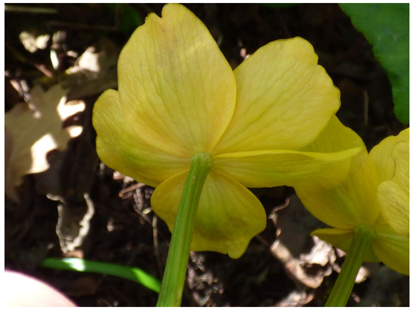
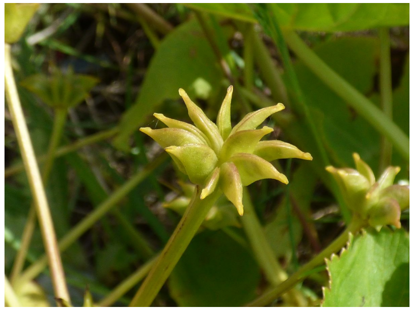
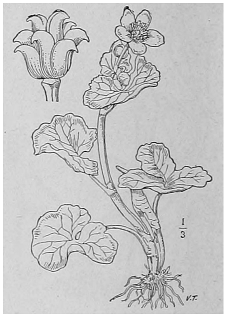
1905 Pratt

Mountain Globe Flower (T. europaeus). - Calyx of about fifteen concave erect sepals; petals shorter and narrower than the sepals, nearly as long as the stamens. Plant perennial. This flower is more frequent in gardens than in our country landscape, but it is not uncommon in mountainous places in the North of England, as well as Wales and Scotland, flowering in June and July. Its large blossoms are of a delicate yellow, and so globular in form that we wonder not that Conrad Gesner named the genus from trol or trolen, the old German word for a globe. This plant is also called by the Dutch Trolbloem. Some authorities derive the name from Troll, a malignant species of fairy. Our gardeners know it by the name of Globe Ranunculus, or Globe Crowfoot; and it is the Lucken gowan of the Scotch.

Our pretty globe flower is paler in colour than the wild species of Ranunculus, and its petals are not glossy like theirs, while the numerous stamens often spread around the centre so as almost to hide the petals. Miller tells us that the Globe Flowers are gathered in Westmoreland, with great festivity, by youth of both sexes, in the beginning of June, and that it is usual to see them return from the woods of an evening laden with these blossoms, with which they make wreaths and garlands to adorn their houses. If this custom is still in existence, it will probably soon be extinct, for the old floral usages of our country, the flower-strewings, and the well-dressings, and the decking of houses and churches with wreaths, are almost over now; and even the garlands of May-days become fewer every year. The practice of dressing the "shrine where we kneel in prayer" with funeral or wedding chaplets, though one of high antiquity, was early preached against by the Fathers of the Church, as a custom of heathen people; yet in country places it was long continued, and even a century ago these wreaths of flowers were very general. A writer in the Gentleman's Magazine of May, 1747, treating of flower chaplets placed in churches, says : "About forty years ago these garlands grew much out of repute, and were thought by many to be a very unbecoming decoration for so sacred a place as the church; and at the repairing and beautifying of several churches where I have been concerned, I was obliged, by order of the minister and churchwardens, to take the garlands down, and the inhabitants were strictly forbidden to hang up any more for the future." He adds, however, that wreaths of flowers were long after carried at funerals, and placed on the face of the departed friend. That garlands were general on festive occasions our old poets abundantly testify; but after their discontinuance in the churches, their use in every way gradually lessened, till hardly a trace of it remained. Milton, in his "Comus," alludes to the ancient use of the chaplet of flowers :- "The shepherds at their festivals Carol her good deeds loud in rustic lays, And throw sweet garland wreaths into the stream, Of pansies, pinks, and gaudy daffodils."

This Globe Flower is our only British species; but various kinds from America, and difierent countries of Asia, are cultivated in our gardens.

Marsh Marigold (Caltha palustris)

Tutin & Clapham, ed 3.
"The flower of Caltha palustris is perhaps the most 'primitive' in the British flora."

1919 BWF vol. 5, p9 (pdf p31)
Marsh Marigold (Caltha palustris, L.)
This is an Arctic plant found in Pre-, Inter-, and Late Glacial, Neolithic, and Roman deposits. It is a plant of the Cold Temperate and Arctic regions, found in Arctic Europe, North and W. Asia, as far as the Himalayas, and in North America. So widely distributed a plant occurs in every part of Great Britain, and in Scotland grows at 3400 ft. in the Highlands. It is found in Ireland. The Marsh Marigold is hygrophilous, i.e. fond of moisture, always confined to marshy tracts, where there are some lime salts in the soil. It is associated in spring with the early-flowering sedges, and sallows, and osiers, and with it grow the marsh-loving Horse-tail, and the pale lilac-tinted Cuckoo Flower or Lady s Smock. In such marshy tracts it forms big clumps which cover the water-meadows as with intertwining chains of gold. It prefers the damp hollows where it is half-rooted in spongy, watery ground. It is found also by stream-sides and in swampy woods.
The Marsh Marigold has a prostrate or somewhat erect habit. The plant is dark-green, rank, hairless, forming conspicuous clusters with attractive blooms. The rootstock is horizontal, short, the stem not rooting at the nodes. The stem may be erect or ascending. The radical leaves are long-stalked, rounded, heart-shaped, with two deep lobes at the base, and a narrow sinus, scalloped, toothed, glossy. The stipules are membranous, entire in bud, and enclose the leaf. The flowers are few, terminal, regular, large. Sepals of a bright yellow colour take the place of the petals. They are overlapping and close, unequal, round to egg-shaped. The follicles are spreading, with a very short beak, and many-seeded. Marsh Marigold is 1-1.5 ft. high. Flowers may be found from March to May, and this is a perennial plant.

The flower is rendered conspicuous by the petaloid yellow sepals. There is an abundance of honey, which is secreted in two shallow depressions below the ovary, and is protected, as there are no petals, by a fold which helps to retain it. The plant is homogamous, that is to say the stigma and the pistil ripen at the same time, and in the ordinary course, as they are more or less on a level, sell-pollination would result. But the flowers are much visited, and hence they are frequently cross-pollinated. Furthermore, the anthers open away from the centre or pistil, i.e. outwards, the outer series first. There are in some countries flowers which have no pistil, a further reduction of the floral axis, along with the ordinary type.

The flowers are 40 mm. in diameter, and hence attractive. The visitors are Diptera (Stratiomyidea), Odontomyia, (Syrphidae), Cheilosia, Ascia, Rhingia, Eristalis, (Muscidae), Scatophaga, Anthomyia; Coleoptera (Nitidulidae), Meligethes; Hymenoptera (Apidae), Andrena, Osmia rufa, Bombus terrestris, Apis mellifica, &c.

The seeds are dispersed by the wind. The aggregate fruits consist of many follicles, with many seeds which are blown out by the wind when the follicle is ripe and dry.

The Marsh Marigold is a peat-loving plant, being dependent on a more or less peaty soil, or acid humus, such as that afforded by a bog, or when alkaline by a marsh.

Puccinia calthae is a fungus which infests it, as does Pseudopeziza calthae.

The beetles Donacia dentipes, D. Iemnae, Prasocuris hannoverana feed on it, and the Homopterous insect Dorthesia urticae.

Caltha, given by Pliny, is the Latin name of some plant, probably the Pot Marigold, and palustris refers to its marshy habitat. The English name is from Mary (i.e. Virgin Mary), and gold, in allusion to its colour.

This plant is called Bassinet, Blob, Boots, Bullflower, Butter-blob, Big Watercup, Great Butter-flower, Carlock-cups, Chirms, Claut, Crow Cranes, Crazy, Dandelion, Drunkard, Fire o' Gold, Water Goggles, Golden Cup, Gollin, Halcups, John Georges, Johnny Cranes, King-cob, Marsh Mallow, Mare-blob, Mayflower, Meadow Bouts, Moll-blob, Publicans and Sinners, Soldier's Buttons. In Oxfordshire Marsh Marigolds and Buttercups are called Publicans and Sinners.

"The wild marsh marigold shines like fire." - Tennyson:

alluding to the name Will (Wild) fire. It is called Open Gowan from its open flowers, as opposed to the closed flowers of the Lockin Gowan.

It is said in Iceland that if the Marsh Marigold is taken with certain ceremonies and carried about it will prevent the wearer from having an angry word spoken to him. It is very acrid and poisonous, and those who have eaten it have been affected by it. The buds are salted and pickled in the same way as capers. From the "petals" a yellow dye is extracted, after boiling with alum. It is not eaten by cattle unless there is a lack of other herbage. Children use it for making garlands on May Day. The "petals" are often eaten by a beetle (Chrysomela).

Essential Specific Characters:- 11. Caltha palustris, L. - Stems numerous, erect, leaves reniform, large, shiny, sepals yellow, large, petals wanting, follicles with short beak.

1919 BWF vol. 6, p138 (pdf p164)

Creeping Marsh Marigold (Caltha radicans, Forst.). - The habitat of this species is wet sub-alpine spots. The habit is creeping, the plant rooting at the joints. It differs from the common form C. palustris in a few essentials. The radical leaves are triangular, acutely toothed, scalloped, small, obscurely 5-angled, blunt below, or kidney-shaped. The base of the leaf is nearly at right angles to the stalk. The sepals are not touching and are narrow. The height of the plant is 8-14 in. It flowers between April and July, and is a herbaceous perennial.

1914 Boulger, vol. 2, pdf p24

THE MARSH MARIGOLD.

Caltha palustris Linne.

WHEN, in 1773, Antoine Laurent de Jussieu chose the Family Ranunculaceae to illustrate for the Académie des Sciences his uncle Bernard's views as to the principles of the Natural System of classification, he could not have made a better choice. Although they all agree in having numerous hypogynous stamens, which would put them in Linne's thirteenth Class, Polyandria, in the absence of cohesion or adhesion between their floral organs, and in the presence of albumen in the seed, they vary so greatly in the number of their carpels that they would fall into various different Linnaean Orders, and so much in habit, in leaf-form, and in floral symmetry that no previous botanist would have ventured to group them together. When, however, they have been so grouped together, on purely anatomical grounds, we find the classification justified by the presence of similar acrid properties not only in the herbaceous majority but also in the exceptionally shrubby genus Clematis. Though most abundantly represented in the cold and Temperate regions of the Northern Hemisphere, the Family is practically cosmopolitan. It comprises nearly a thousand species in about thirty genera, and fifteen genera and some forty-eight species of these are British.

Most members of the Family are, as we have said, herbaceous, but perennial. They have sympodial rhizomes under ground and the branching above ground is also cymose. The leaves are usually scattered, with sheathing bases and deeply divided blades. The parts of the flower are arranged spirally, with the usual accompaniment of an indefinite increase in their number; but the perianth and the carpels are sometimes whorled and are then made up of fewer leaves. The perianth is often petaloid, and the presence of distinctly differentiated calyx and corolla is exceptional. The flowers are nearly always perfect, and polysymmetry is the rule, though interesting monosymmetric flowers occur in the Monkshoods and Larkspurs. Honey is generally present, and the anthers mature before the stigmas and burst outwards, or extrorsely, in succession. There is, however, as we shall see, an interesting series of adaptations to insect visits, becoming gradually more complete. The character of the carpels, and the number of the ovules they contain, afford the best basis for the subdivision of the Family into Tribes. They vary in number from one, two, three, or five to an indefinite number, being whorled when few and spiral when numerous, and seldom show any cohesion; but they may contain numerous ovules, in which case they split open, when ripe, down one side, each forming what is termed a follicle, or they may contain only one ovule and then each forms an indehiscent achene.

The Tribe producing follicles, or carpels with many ovules, is known as Helleboreae; that producing achenes, as Anemones. The former includes the Marsh Marigolds, Globe-flowers, Hellebores, Love-in-a-mist, Winter Aconite, Baneberry, Columbines, Larkspurs, and Monkshoods; whilst Anemone, Clematis, Ranunculus, Thalictrum, and Myosurus are the chief genera in the latter.

The genus Caltha, the name of which (derived from the Greek κάλαθος, kalathos, a cup, and suggested by the form of the blossom) dates from Pliny, is but a small one, comprising some sixteen species; but they are widely distributed in the colder and Temperate regions of both the Northern and the Southern Hemispheres. This alone is an argument for the great antiquity of the type. One Antarctic species, C. dionaeaefolia Hooker filius, has leaves the form of which closely resembles those of the Venus's Fly-trap (Dionaea muscipula Ellis) of Carolina, and they may have a similarly complex physiology.

As is commonly the case in this Family, the tap-root in Caltha ceases to elongate and is replaced by a bunch of unbranched fleshy root-fibres, and the main stem forms a short horizontal rhizome. The leaves are chiefly radical and are palmately-veined and cordate at the base. The inflorescence consists of a few large flowers with a deciduous petaloid calyx of five yellow or white sepals, which are imbricate in the bud. There are no petals, but from five to ten carpels, spirally arranged, each containing a double row of ovules. Honey is secreted by the bases of the carpels, and the fresh fragrance of the blossoms belongs apparently partly to this honey and partly to the copious pollen of the many stamens. Most of the species of the genus are semi-aquatic or marsh-plants and are glossily glabrous. This striking lustre, the rounded leaves, and the golden-yellow blossoms of our common Marsh Marigold suggest, indeed, a relationship to the Lesser Celandine closer than actually exists. It is a singular fact that the burnished, golden, rounded sepals of the larger plant cannot be considered closely homologous with the similarly coloured but pointed petals of the smaller.

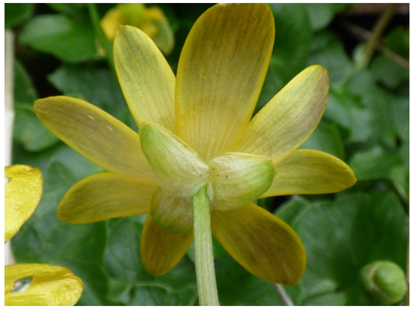
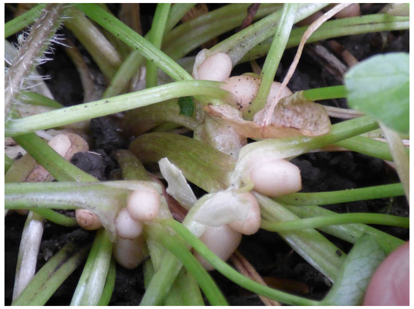
The large kidney-shaped leaves of our British species (C. palustris Linne) have long stalks, membranous stipules, and a toothed margin, and its flowers are from one to two inches across. Its honey is abundant and is secreted in two shallow depressions at the base of each carpel. Being in no degree concealed it is the food of flies and beetles as well as of bees.

Several varieties have been described with smaller blossoms, of which the most marked is the Scottish C. radicans Forster, which roots at its nodes. There are also double-flowered forms in cultivation.
When, from the end of March into May, as Tennyson says, "The wild marsh marigold shines like fire / In swamps and hollows grey," its conspicuousness earns for it a great variety of popular names, most of which, such as Horse Buttercups Gilty-cup, and King-cup, are of obvious significance. The northern names Gowlands and Golland merely refer to its golden colour; while the very general Blobs or Water-Blobs and the obsolete Bassinet refer to its globular buds, "blob" being connected with "bubble," and "bassinet" being a basin-shaped cap or helmet.

1905 Pratt
8. Marsh Marigold (Caltha). 1. Common Marsh Marigold (C. palustris). - Stem erect, rooting or creeping; leaves kidney-shaped, their edges with rounded notches, calyx-leaves soon falling off. This flower, which is not of the form of a garden marigold, but which resembles a large thick buttercup, is very common on moist pastures and by the side of streams. It is one of our earliest blooming wild flowers, sometimes gleaming with golden beauty as early as February, and continuing for three or four months. It is the first flower of the meadows in Sweden and Lapland, and in the former country is called Kalfleka. It is very abundant and conspicuous in the northern lands of Europe, and in May gives quite a yellow tint to the fields. The French, who commonly call it Le Souci d'eau [Water Marigold], term it in some provinces Le Populage [The Population]; and the Italians give to it the poetic name of Sposa del sole [Bride of the Sun]. It is common in the moist fields of Germany, where it is known as Die Sumpfdotter-blume [Swamp Yolk]; and in Spain the peasant calls it Hierba centella [Scintilla Herb]. In some counties in England its rustic names are Water-dragon, Water-blob, or Horse-blob. Old herbalists tell that the yellow tint of the Spring butter is owing to the cows having fed upon this plant; but it is not wanting in the acridity which characterises Ranunculaceous plants in general, and cattle only eat it when urged by hunger. Boerhaave said that it caused so much inflammation to animals eating it that they rarely escaped death. The young flower-buds, prepared with salt and vinegar, are used instead of capers; and the juice of the flowers, boiled with alum, stains paper of a beautiful, though not a permanent, yellow tint. This flower was formerly much used for May garlands, and for forming wreaths to hang about cottage doors. A double variety, often cultivated in gardens, has been found in a wild state on Coldham Common, and in Grandchester Meadow, Cambridgeshire.

1905 Pratt
2. Rooting Marsh Marigold (C. radicans) is a rare species or perhaps only a variety of C. palustris - restricted to Forfarshire. It is chiefly distinguished by its triangular leaves.

Lesser Celandine (Ficaria verna)

1919 BWF vol. 2, p9 (pdf p31)
Lesser Celandine (Ranunculus ficaria, L.)
Owing to its soft carpels, perhaps, this plant has not often found fossil[ised]. It is confined to the Arctic and Warm Temperate Zone, occurring in Arctic Europe, Western Asia, and North Africa. It is found in every part of England and Wales as well as Scotland, from the Shetland Isles southwards. In Wales it grows at a height of 2400 ft. It is found in Ireland and the Channel Islands.

The lowly Pilewort, to give it its other name, so unlike the usual type of Crowfoot or Buttercup in flower, and especially in foliage and habit, differs in having only one cotyledon, which may be regarded as due to its geophilous habit, that is to say, the green parts live above ground for only part of the year. Thus it is propagated by small tubers, which give it its name, and it would appear according to one view to be a Dicotyledon which has suppressed its other cotyledon or seed-leaf owing to the fact that its habitat was once more aquatic. It will be found down in the damp hollows of clayey ash woods, or in moist open meadows and fields, and under hedges carpeting the bank to the exclusion of all else. In fact, on a lawn it is a great exterminator of grass.

The Lesser Celandine has a loose rosette habit. The plant is without hairs. The root-fibres are stout, cylindric, or tufted tubers, which are thick, club-shaped, fleshy. The stem is prostrate, short, branched below, weak, sometimes with bulbs or corms in the axils, in which case the plant does not [greatly?] flower but reproduces by the corms. The stem is one-flowered, with 1-3 leaves. The leaves are chiefly radical, heart-shaped, thick, smooth, shining, dark green, angular, the angles blunt, or the margin may be wavy or scalloped. The leaves are stalked, the leaf-stalk stout and thickened below.

In the typical form the lobes of the lower leaves are separate at the base, not overlapping. The lowest sheaths are narrow. The stomata are on the upper surface of the leaves as in aquatic plants with floating leaves, and this species may once have been aquatic.

The flowers are large, shining yellow golden, about an inch in diameter. The petals may be absent. The flower-stalks are in the axils, stout, with one or two leaves. The petals are usually eight in number, but vary considerably in number up to sixteen, and in form, being often much reduced. There are three sepals as a rule. The achenes form a round head and are smooth, blunt, large. Seed is not always set, the plant reproducing vegetatively. The style is very small. The cotyledon is single as in monocotyledons, which may result from suppression of the second, or be a primitive character. Since the plant is a geophyte and adapted to aquatic conditions, as a large proportion of the Monocotyledons also are, the order Ranunculaceae may be regarded as closely allied to the Monocotyledons.

The Lesser Celandine grows 6 in. high, flowers from March to May, and is perennial.

The mode of pollination in the Lesser Celandine is not dissimilar on the whole to that in the common Meadow Crowfoots. The anthers ripen before the stigma. The number of the stamens is variable, as in the other parts of the flower. The plant flowers early, at a time when few insects are flying, but none the less it is much visited by insects, which seek honey as well as pollen. The anthers are turned towards the centre at first, but the outer anther stalks bend so that they lie just above the honey glands at the base of the petals. An insect seeking honey will naturally brush itself with pollen, which it bears to the next flower and deposits on the stigma. The anthers then turn outwards, an adaptation to prevent self-pollination. The next row of stamens then follows suit and the performance is as before.

In spite of this, as mentioned already, seed is rarely set, and the plant is vegetatively reproduced to a great extent. In some cases only female flowers occur. Early in the season the flowers of most plants possess few, 2-3, petals, those that come on later having as many as eleven.

The seeds are scattered by the plant itself being contained in rounded achenes or fruits, which are adapted for dispersal when the achenes are mature and drop off.

Pilewort is a typical clay-loving plant, requiring a clay soil, generally derived from older rocks, and furnished by granite and schistose formations as well as later Carboniferous and Triassic formations.

The orange cluster-cups of the small fungus Uromyces boae grow on the leaves of this plant, being the second phase of the fungus, which grows on various grasses. Other fungi which infest it are Peronospora Ficariae and Entoloma Ranunculi.

The moth Flame Brocade (Phlogophora empyrea or Trigonophora flammea) infests it in the caterpillar stage.

Ficaria was proposed as a genus by Brunfels in allusion to its supposed cure of piles (Latin ficus, a fig). Celandine is the name given (from greek chelidon) from its blossoming when the swallow arrives.

In English it is called Bright Eye, Celidony, Grain, Crazy, Crow Pightle, Figwort, Foalfoot, Gilding-cup, Gilty Cup, Golden Cup, Golden Guineas, Goldy Knob, King-cup. Marsh Pilewort, Paigle, Pilewort.

"There's a flower that shall be mine / 'Tis the little Celandine." Wordsworth.

The Lesser Celandine is not so acrid as the other species. The leaves have indeed been employed as a potherb. The roots are, however, acrid and bitter. By the law of signatures it was recommended as a remedy for piles. Pigeons are said to eat the tubers.

The tubers lie near the surface, and when exposed by rains their appearance gave rise to the notion that the atmosphere had rained wheat. In Sweden the plant is used in place of cabbage.

Essential Specific Characters:-

10. Ranunculus Ficaria, L. - 1 cotyledon, root knob-like, leaves reniform, cordate, radical, shining, entire, flowers yellow, 3 sepals, 9 petals, achenes smooth, obtuse, globose.

1914 Boulger, pdf p60

THE LESSER CELANDINE.

Ranunculus Ficaria Linne.

TO the evolutionist such taxonomic terms as species, sub-genus, genus, etc., are mere conventions expressing as nearly as we can make them varying grades of relationship or of remoteness of common ancestry. We may well, therefore, admit that there is a good deal to be said in favour of the treatment of the Section Ficaria of the genus Ranunculus as a distinct genus. The two or three species of this group, only one of which is British, are perennials with entire leaves, mostly radical, but with a few cauline ones in opposite pairs, from three to five sepals, from eight to twelve yellow petals, and small achenes. Ranunculus ficarioides Bory and Chambard (= Ficaria peloponnesiaca Nyman) is a form with crenate leaves, occurring in Greece; and the South European F. grandiflora Robert (= R. Ficaria calthaefolia) has flowers about two inches across and decidedly downy carpels. Our own species, the Ficaria verna of Hudson or Ranunculus Ficaria of Linne, which occurs from the Arctic Regions to North Africa, presents some well-marked variations to which names have been given.

Its root consists of a cluster of stout unbranched fibres, among which are the numerous white, fig-shaped tubercles, each from half an inch to an inch long, to which it owes the names Ficaria or Figwort. These partake of the acridity which characterises the whole plant and it may have given them some medicinal efficacy; but it was doubtless their form that led, under the doctrine of signatures, to their use as a remedy for haemorrhoids, and to the name Pilewort.

The stem is generally very short, so that all the leaves may be radical; but it may elongate to several inches, bearing pairs of stalked leaves and sometimes rising erect; but more often prostrate and then often rooting from its nodes. Small tubers are not uncommon in the leaf-axils.

The leaves are heart-shaped and may be obtusely angular, wavy, crenate, or even deeply lobed, and their glossy bright green is sometimes splashed with the purplish black stains of anthocyan. This is, perhaps, more especially the case when the plant is growing, as it often does, in shady places. The petiole is longer than the blade, stout and dilated at the base into a membranous sheath. In the more common form (var. divergens Schultz) these sheaths are narrow, and the auricles of the leaves do not overlap; but in another, more luxuriant form (var. incumbens Schultz) the sheaths embrace the next innermost leaf-bases and the auricles overlap. As is often, but not always, the case with the acridity of the Ranunculaceae, the pungency of these leaves largely disappears on boiling, and they are used for food in Sweden and Germany, the plant having in consequence such names as Pfenningsalat (Penny Salad), and Scharbocks-Kraut (Scurvy-grass) and Loffel-Kraut (Spoonwort), which it shares with Cochlearia.

The brilliant golden star-like blossoms, among the earliest of the spring, appear from March to May, borne on long stout stalks which are axillary, although mostly rising as scapes from the suppressed stem. They are about an inch across, with three concave greenish sepals below and an array of sub-acute petals, generally nine in number, with that glistening coating of a varnish-like gum that throws a reflection of their yellow colour on to the chin when children try if they "like butter." In fading, the petals turn white and occasionally they are altogether absent. Honey is secreted by a gland at the base of each petal which is covered by a scale, as in other Ranunculi, and the flowers are freely visited by a variety of short-tongued insects. The stamens also mature their pollen before the stigmas are receptive, as is the rule in insect-pollinated flowers; and the opening and closing of the flowers, which usually occur about 9 a.m. and 5 p.m. respectively, also suggest dependence upon insects. Nevertheless the plant rarely sets seed, being propagated almost entirely by its tubers. These are produced in great numbers, so that it is said that, when exposed by the washing away of the soil by rain, they have given rise to the notion of its having "rained wheat." Flowers are occasionally produced without stamens, and the achenes, which are slightly downy, are also sometimes clearly abortive. So abundantly, however, does the plant reproduce itself vegetatively that it often proves seriously detrimental to grass land on a moist soil. It is stated, however, that it can be got rid of by dressing the ground with coal or wood ashes.

Turner, the first of our botanists to mention the plant, writes in 1548 "Hirundinaria called in greeke Chelidonium is of ii kyndes... The second kynde called in latine Chelidonium minus, is called in englishe Fygwurt, it groweth vnder the shaddowes of ashe trees. It is one of the fyrst herbes that hath floures in the spring."

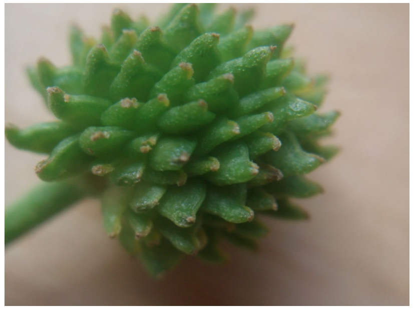
Considering the charm of its golden stars in early spring it is remarkable that no poet seems to have sung the praises of the Lesser Celandine till Wordsworth wrote:- "Ere a leaf is on a bush, / In the time before the thrush / Has a thought about her nest, / Thou wilt come with half a call, / Spreading out thy glossy breast / Like a careless Prodigal; / Telling tales about the sun, / When we've little warmth, or none. / Careless of thy neighbourhood. / Thou dost show thy pleasant face / On the moor, and in the wood. / In the lane:- / there's not a place. / Howsoever mean it be, / But 'tis good enough for thee."

1905 Pratt

11. Lesser Celandine, or Pilewort (R. ficaria). - Leaves heart-shaped, or kidney-shaped, and stalked, angular; sepals 3; petals about 9. Stem, single flowered. Plant perennial. Every lover of flowers welcomes the bright glossy blossom, which, while March winds are yet blowing, spangles meadows and banks, and enlivens some of our woodlands where the trees are not thickly planted. It is a flower which has suggested some beautiful thoughts to poets; and few who have looked on it, as the sun shone brightly on its star-like form, would not join with Wordsworth in telling its praises, and feel that there was truth in his playful fancy respecting it. This so differs in the shape of its blossoms from our Spearworts and Crowfoots, that some writers place the Celandine in a distinct genus, when it is called Ficaria verna. The leaves are dark green, varied with a paler tint, very glossy and brittle. Children in country-places in Kent rub their teeth with them, to improve their whiteness. They were also formerly boiled and eaten; but the author, who has tried their worth, cannot say much in their favour. Linnaeus recommended to the

agriculturist the extirpation of this plant from the pasture, on account of the space occupied by its roots and leaves, and because he considered it injurious to herbs growing near it. Cattle refuse to eat it. It is known in some places by the name of Ficaria; and this was given from ficus, a fig, because of the little fig-shaped tubercles on the roots. It is owing to the large amount of plant-food stored up in these tubers in one season that the plant is enabled to flower so early and freely next year. It grows throughout Europe, and Dr. Clarke found it near Moscow, just losing its blossoms, on May 29. Elliott has some beautiful lines on the flower:- "The Celandine, The starry herald of that gentlest gale, Whose plumes are sunbeams dipp'd in odours fine."

Great Spearwort (Ranunculus Lingua)



1919 BWF vol. 5, p7 (pdf p29)
Great Spearwort (Ranunculus Lingua, L.)

This fine plant has been recognized by its achenes in deposits of Interglacial, Neolithic, and Roman age. It is found in the Warm Temperate Zone, in Temperate Europe, N. and W. Asia, as far as the Himalayas. It is absent in East Cornwall, South Wilts, Gloucester, Worcester, Carmarthen, Cardigan, Montgomery, Denbigh, Mid Lancs, Isle of Man, Peebles, Selkirk, Haddington, Stirling, Kincardine, Banff, Westerness, Cantire, S. and Mid Ebudes, W. Ross, Sutherland, Caithness, and the Northern Isles. It is local in Ireland, and is found in the Channel Islands.

The Great Spearwort is an aquatic Hydrophyte or water plant, or Hygrophyte or moisture-loving species, living in the middle of pond or lake, half-submerged, and being also a typical marsh plant, occurs also in swamps and ditches. Usually it grows some distance from the margin, and in this way is hard to reach, unlike its congener the Lesser Spearwort, which is found on the ground surrounding a pond or in marshes and wet ground. With the Greater Spearwort grow Frogbit, Bur Reeds, the Sweet and Yellow Flags.

Though aquatic it is erect, and grows out of the water in the same way as the Flag or Reeds. It grows in a group of some extent, usually not in deep water, or in wet, peaty soil. It is tall, erect, and graceful, and the flowers being largely terminal and bright yellow form quite a golden patch in the otherwise green marshes. The stem is hollow.

Perhaps from the long, entire, spear-shaped, aerial leaves, giving the English name its significance, one can best recognize this handsome species. They are half-clasping, and the radical leaves are stalked, while the rest are not, and have a semi- rather coarsely-toothed edge. The lower, sometimes submerged, leaves are tongue-shaped (hence Lingua) or heart-shaped, blunt, 3 in. broad, 8-9 in. long. The carpels are pitted and have a sword-like beak.

The flowers are large, yellow, nearly 2 in. in diameter, in a sort of panicle. The glands of the petals have a small scale. The achenes are pitted. The style is broad.

Great Spearwort varies from 2 to 4 ft. in height. Flowers can be found from June to August. It is a perennial, deciduous, herbaceous plant.

Pollination is as in the Lesser Spearwort, where the flowers are scarcely expanded when the anthers open outwards, covering the sides towards the petals with pollen; but in this case the stigma is mature first. Insects in the case of the former feed on the abundant honey in little scales at the base of each petal, and so dust themselves with pollen at the same time. The stigmas are concealed by the stamens and undeveloped. As the stamens open they bend out, and turn their pollen-covered sides outwards. The outer stamens develop before the innermost stamens join the others, and the stigmas becoming dusted with pollen, can be pollinated with their own pollen or that brought from other flowers. All visitors alighting on the middle, bearing pollen, cross-pollinate some stigmas, those alighting first on petals touching the anther and stigmas, either causing cross- or self-pollination. The flower being half-drooping may also be self-pollinated from this reason. The visitors are Flies, or Diptera, Syrphidae, Syritta, Cheilosia, Melithreptus, Muscidae, Scatophaga, Anthomyia; Hymenoptera, Apidae, Halictus; Lepidoptera, Satyrus, Pamphilus.

Spearwort is dispersed by its own agency. The achenes are aggregate, and dispersed around the parent plant.

This handsome species is a Hydrophyte or water plant and aquatic, or a Helophyte or marsh plant.

A fungus, Aecidium ranunculacearum, forms orange-yellow groups of "cluster-cups" on the leaves.

The specific name (once a genus) Lingua was bestowed by Pliny, and means a tongue, and was used in allusion to the shape of the leaves. Possibly Pliny's plant, however, was the Hart's Tongue.

It is called also Spear Crowfoot and Sparrow Weed. The Lesser Spearwort was used under the name "flame" as a cure for "cankers " or ulcers. It is a poisonous plant, and the Lesser Spearwort is of the same nature.

Essential Specific Characters:-

6. Ranunculus Lingua, L. - Stem-leaves entire, subserrate, sessile, stem erect, flowers large, yellow, carpels pitted, style broad with ensiform lip.

1914 Boulger, vol. 2, pdf p64

THE GREATER SPEARWORT.

Ranunculus Lingua Linne.

This handsome plant, the largest of our British species of Ranunculus, is not common, although it is pretty generally distributed throughout Britain. Thus, out of the 112 counties and vice-counties of approximately equal size into which Hewett Watson divided our island, and those more immediately adjoining it, this species has been recorded in seventy-seven, whereas fifty is, perhaps, an average number. It occurs over northern and western Asia, down to the Himalaya, and throughout Temperate Europe; but is not recorded from Scotland north of Aberdeen, and is only local in its occurrence in Ireland. It grows in ditches and marshes, and in the Norfolk Broads is characteristic of the outer or "free water side" of the shallow-water Reed-swamp association of the ecologists, where it is accompanied by Phragmites, the large Willow-herb (Epilohium hirsutum L.), the Forget-me-not, Bittersweet, Yellow Iris, Branched Bur-reed, Great Water Dock (Rumex Hydrolapathum Hudson), and Bulrush (Typha).

It belongs, as do the two following species, to a Section or Sub-genus known as Eu-ranunculus, mostly perennial plants with leaves generally radical and exstipulate, the parts of the flower in fives, the petals yellow, and the achenes destitute of tubercles on their surface. Within this Section, the Spearworts are distinguished by their undivided leaves, of which the upper ones are lanceolate. The Lesser Spearwort (R. Flammula Linne) is much commoner than R. Lingua and in every way smaller; but large-flowered forms of the former, in which the blossoms reach three-quarters of an inch in diameter, are sometimes mistaken for the other species. R. Flammula is a very variable plant; but It always has furrowed flower-stalks and inflated short-beaked carpels, whereas R. Lingua has its flower-stalks free from furrows and a broad, strong, sword-shaped beak to its achenes.

A dense mass of fibrous roots adapt the plant to its situation in mud not often much disturbed by wind or currents; and, in addition to this tuft of roots at the base of the stem, others are often put out by the lower joints of the stem which may assume a more or less prostrate or ascending position.

The stem generally rises erect to a height of two or three feet and is stout and hollow. Both it and the upper aerial leaves that it bears may be either glabrous or densely covered with stiff adpressed hairs, though this hairiness and the presence of markedly distinct submerged leaves have been often overlooked by botanists when describing the plant. Thus Gerard speaks only of "long smooth leaves not unlike those of the Willow," though his editor Johnson says "leaves a little hairy." Linnaeus briefly characterises the leaves as lanceolate; Lamarck and De Candolle in the "Flore Françaíse" (1805) add that they are amplexicaul, i.e. sessile and more or less wrapped round the stem at the base ; and Gray's "Natural Arrangement of British Plants" (1821) seems to be the first work to note the few slight teeth along their margins. Bentham in his "British Flora" (1865) refers only to aerial leaves, which he describes as "glabrous with a few nearly parallel veins," as also does Hooker in his "Student's Flora," his full description being "leaves sessile, 1/2-amplexicaul lanceolate entire or toothed... 6-10 in. 3/4-1 in. broad, veins parallel or reticulated." Nevertheless the presence of submerged leaves seems to have been observed at least as early as Caspar Bauhin, who writes in his "Pinax Theatri Botanic!" (1623), "Folia prima aliquando subrotunda sunt." Parkinson also seems to have seen them, since in his "Theatrum" (1640) he says:- "The Greater Marsh Spearwort hath a long joynted root, whence riseth up a thick joynted smooth stalke, two foot high, furnished with large and long shining and smooth thinner leaves, than in the next [R. flammula L.], some being more than half a foote long and two to three inches broad, but smaller up to the toppe." Two centuries later these submerged leaves were correctly described by Bromfield in his "Flora Vectensis" (1856), by Syme in "English Botany" (1863), and most fully by Roper in the "Journal of the Linnean Society " in 1884. They are seven to nine inches long, on sheathing petioles which are four or five inches long, the blades three or four inches across, ovate-oblong, obtuse, cordate at the base, entire or slightly undulate-crenate, rather membranous and semi-transparent, perfectly glabrous, reticulately veined, and remaining green throughout the winter. On the other hand, the aerial leaves are almost sessile, with sheathing bases, erect, lanceolate, six to ten inches long, about an inch across, very acute, with slight distant serratures, leathery, opaque, smooth or hairy with adpressed hairs chiefly on their under surfaces. Their venation adds to their many resemblances to the leaves of aquatic Monocotyledons, there being one principal midrib from which pairs of much finer secondary longitudinal veins arise at intervals converging at the apex of the leaf, while fine obliquely transverse tertiary veins complete the meshwork.

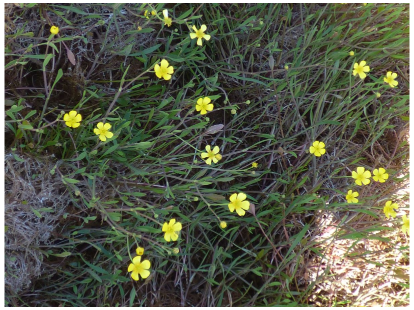
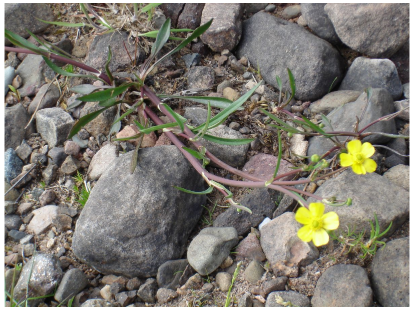
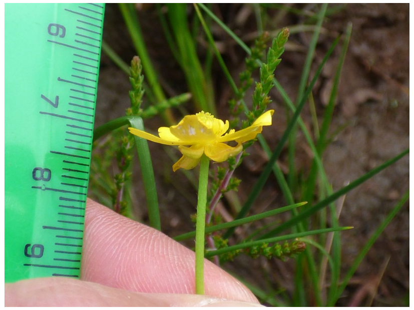
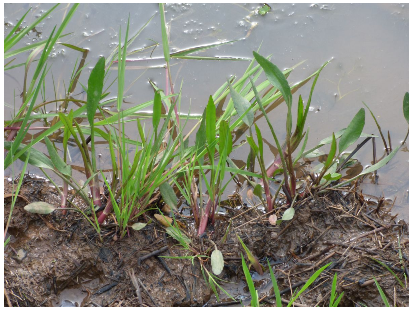
The handsome flowers are about two inches across, and have a copious secretion of honey from the large gland at the base of each petal. The stigmas mature before the anthers, which bend and burst outwards in succession; but, though pollination is mainly effected by flies, self-fertilisation may also occur. The carpels are compressed, with a flat margin and a minutely pitted surface.

The English name Spearwort obviously refers to the upper leaves, as does also the specific name Lingua that Linnaeus borrowed from Pliny; but when Pliny says "there is herb called ‘lingua' which grows in the neighbourhood of fountains," it is more probable that he was referring to the Hart's-tongue Fern than to this plant. In spite of its aquatic habitat the Spearwort has the marked acridity of the Family, while the allied R. Flammula derives from this property its name, which signifies "a little flame."

1905 Pratt

8. Great Spearwort (R. lingua). - Leaves narrow, tapering to a point, without stalks; stem erect. Plant perennial. Flowers large, June to August. We have by our stream and river sides, and on bogs, two species of Spearwort which are both common flowers, resembling tall buttercups in all things but their slender spear-shaped leaves, to which they owe part of their familiar name. The old Saxon "wort" or "weed" is retained in the English names of many plants, as milkwort, butter wort, etc., all of which were well known to our forefathers. The foliage of this Spearwort is thick and succulent, its stem often three feet high, and of a bright pale green. The plant is conspicuous on the bog, where it towers above the bog asphodel, and the marsh orchis, and the ivy leaved bell-flowers, and many other lovely plants of the marsh land; for true to the life is Tennyson's description:- "One willow over the river wept And shook the wave as the wind did sigh; Above in the wind was the swallow, Chasing itself at its own wild will, And far through the marish, green and still. The tangled water-courses slept, Shot over with purple, and green, and yellow."

Lesser Spearwort (R. flammula)

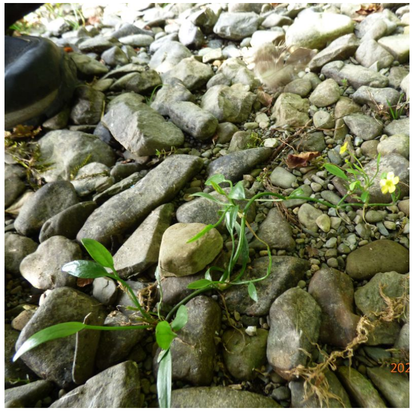
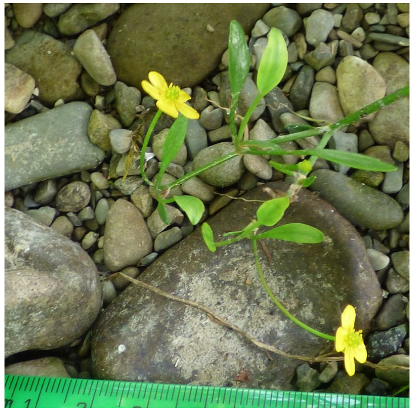
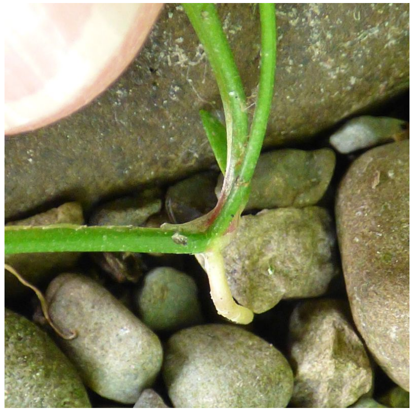
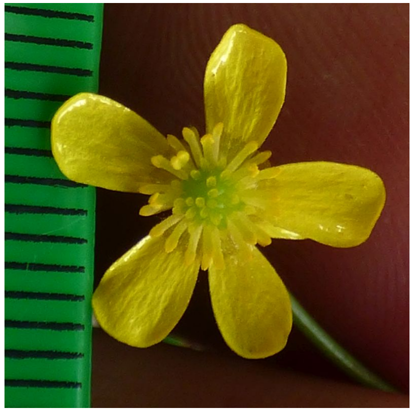
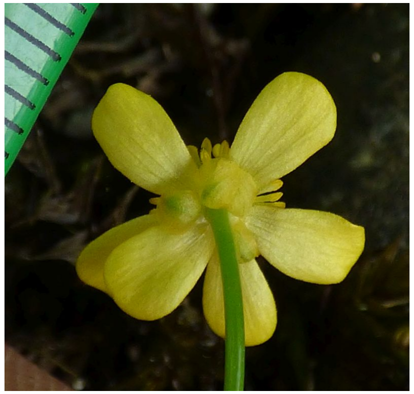
1919 BWF vol. 6, p138 (pdf p164)
Lesser Spearwort (Ranunculus flammula, L.). - The habitat of this species is wet places. The plant is prostrate below, then ascending or creeping. The stems are sometimes rooting below. The leaves vary considerably, being hairy or not, egg-shaped or linear to lance-shaped, nearly entire or coarsely toothed, stalked, the lowest leaves stalked, the upper stalkless. The internodes are straight. The flowers are shining yellow. The flower-stalk is furrowed. The achenes are inversely egg-shaped, pitted, shortly beaked, the style small, awl-like, forming a small head. The plant is 4-18 in. high, flowering from June to October, and is a herbaceous perennial.

1905 Pratt
9. Lesser Spearwort (R. flammula). - Leaves variable, narrow, tapering to a point, slightly stalked; stem creeping at the base. Plant perennial. This species, which is much smaller than the last [R. lingua], is often its companion on the bog. It remains in bloom somewhat later, and in some specimens its leaves are covered with a silky down. This lesser species is one of our most acrimonious plants, and is very abundant on the margins of the Highland lakes, as well as on the borders of English ditches. Dr. Withering, who, besides being a good botanist, was a skilful physician, remarks of this Spearwort:- "I feel myself authorized to assert that, in the case of poison being swallowed, it is preferable to any medicine with which I am acquainted." He adds, "that besides its speedy emetic action, it does not excite the painful bodily sensations which are often occasioned by the dose of white vitriol so generally given in such cases." The distilled water of this Spearwort is occasionally used as an emetic; but, notwithstanding this authority, its use is not frequent. The plant is sometimes laid on the skin to raise blisters; but these are extremely difficult to heal.

R. flammula subsp. scoticus

1919 BWF vol. 6, p101 (pdf p127)
Ranunculus scoticus, Marshall (= R. petiolaris, E. S. Marshall). - The habitat of this plant is Highland lakesides. The plant is closely allied to the Lesser Spearwort, resembling it in habit. The stem is smooth, solitary, suberect, zigzag. The stem does not root at the nodes. The young radical leaves are numerous, small, and do not persist, being without any lamina. The later radical and lower stem-leaves are larger, with or without blunt, oblong to lance-shaped laminae. The upper stem-leaves are linear, lance-shaped, blunt, stalkless, or nearly so. The flowers are yellow, the petals inversely ovate, blunt. The carpels are inversely ovate, and pitted. The plant is 4-12 in. in height, flowering from June to August, and is a herbaceous perennial.

Ranunculus x levenensis (Loch Leven Spearwort)

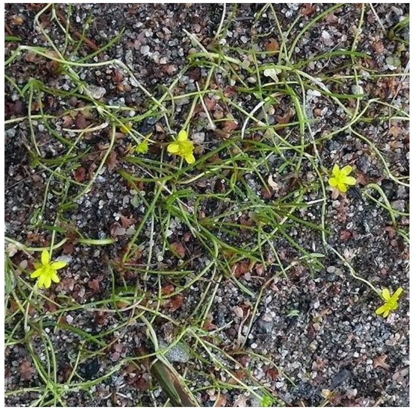
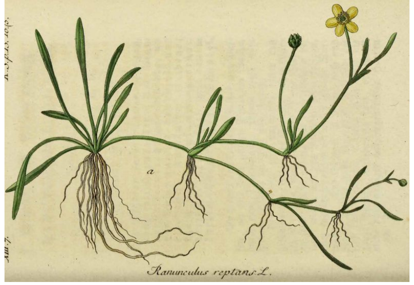
NOTE early works will not discriminate R. reptlans and x levenensis - the latter is the commoner of the two!

1919 BWF vol. 6, p101 (pdf p127)
Ranunculus reptans L. - The habitat of this plant is sandy shores of Loch Leven, &c. The plant is prostrate in habit. It is very slender, and the stem roots at every arching internode. The leaves are linear, entire. The flowers are very small. The achenes are very small. The style is sub-cylindrical, and bent back. The carpels are bluntly beaked. The plant is 1-4 in. in height, and flowers between June and August. It is a herbaceous perennial.

1987 Watsonia (extracts)
Full PDF Article (R. J. Gornall)
The character most useful in distinguishing the hybrid from its parents is the relative length of the achene beak. In the British Isles, hybrids occur sporadically on a few northern lake shores; they also occur in southern Scandinavia, northern central Germany and the Alps. Their presence in the British Isles is due to hybridization between native R. flammula and plants of R. reptans that have probably been dispersed to these islands by waterfowl migrating from Iceland, Scandinavia and the northern part of the U.S.S.R. ...
Stems procumbent, 0.50-2.75 mm in diameter, rooting at the nodes, the internodes often arcuate. Basal leaves usually with a distinct petiole, the blades 5-20(-30) mm long x 1-4(-10) mm wide, linear or spathulate to narrowly ovate. Flowers 1-2(-6) per inflorescence, 6-12(-15) mm in diameter, the petals obovate, 1.2-3.0(-4.5) mm wide at the widest point. Achenes ellipsoid to ovate, (1.0-)1.2-1.5(-1.7) mm long (excluding beak), narrowed more or less abruptly to a beak, (0.15-)0.2-0.4 mm long, the ratio of beak length/achene length being about 1/5. Chromosome number 2n=32. ...
The hybrid can usually be distinguished from its parents by a combination of the characters shown in Table 1. Unfortunately, most of these characters are highly plastic, and sometimes it can be particularly difficult to tell the hybrid from either the procumbent plastodeme of R. flammula (var. tenuifolius Wallr.) without a cultivation experiment, or from pure R. reptans, although Table 1 shows that the achene beak length/achene length ratio is reasonably diagnostic in both cases. Extreme difficulties arise in situations where the hybrid is a product of backcrossing to one parent or where it is a parental-type segregate. In such cases there is no easy answer except arbitrarily to treat all variants that fall within the established morphological ranges of the parents as pure species, even if hybrids occur in the same population. The high levels of pollen sterility in natural hybrids that were reported by Padmore (1957) and Candlish (1975) were possibly due to chance environmental

effects: Gibbs & Gornall (1976) found that hybrids, both synthetic and natural, form 16 bivalents at meiosis, show at least 88% pollen stain ability, and set a full complement of fruit on cross-pollination.

Creeping Spearwort (R. reptans)

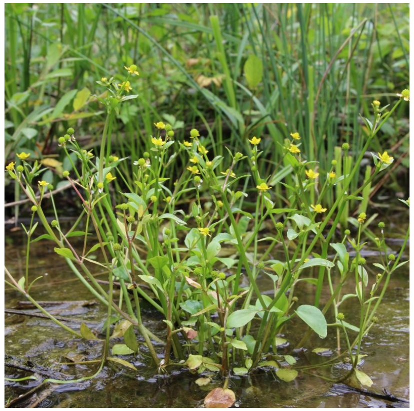
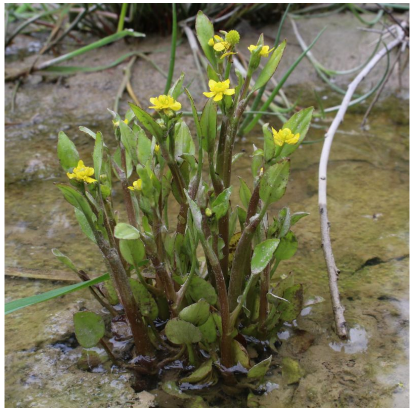
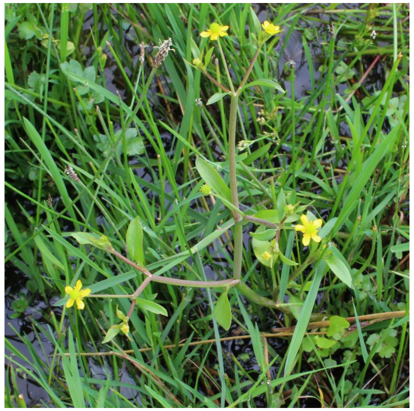
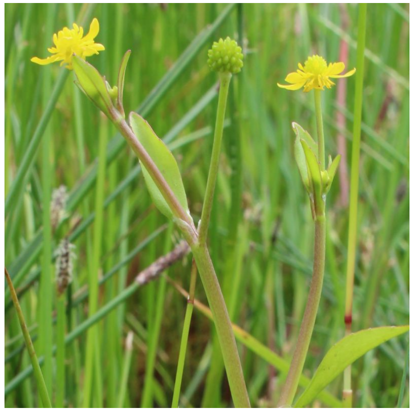
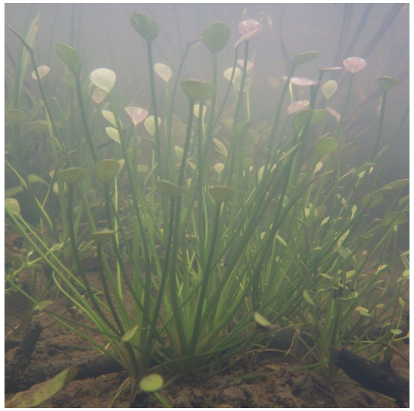
Pic: luontoportti.com (Jouko Lehmuskallio)	Pic at plantillustrations.org as "Deutschlands flora, J & J W Sturm"			
	 Ranunculus reptans L.			

NOTE early works will not discriminate R. reptlans and x levenensis - the latter is the commoner of the two!

See under above R. x levenensis for descriptions.

Adder's Tongue Spearwort (R. ophioglossifolius)

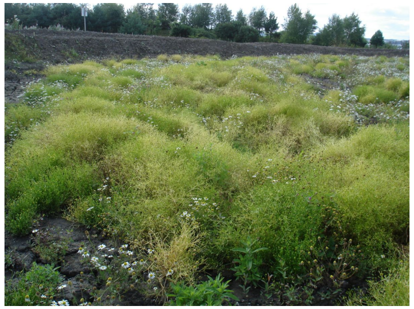
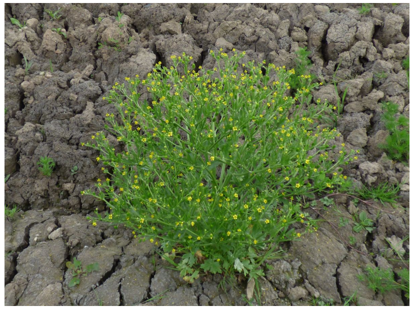
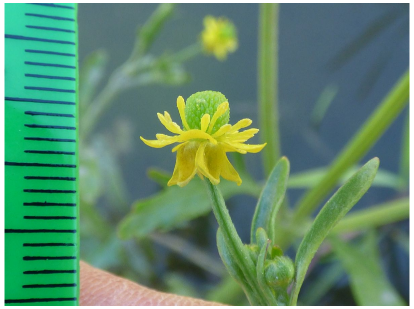
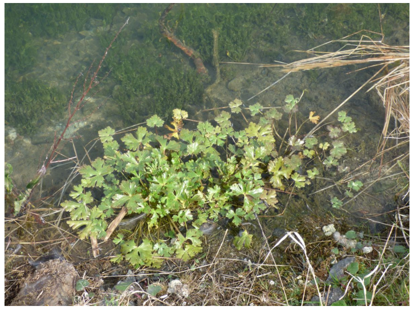
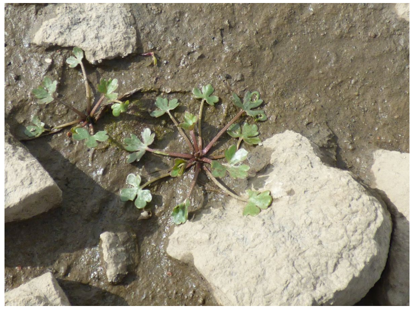
Photos : Richard Lansdown, Inglestone, Shropshire

1919 BWF vol. 6, p138 (pdf p164)
Adder's Tongue Crowfoot (Ranunculus ophioglossifolius, Vill.). - The habitat of this plant is wet places. The habit is prostrate below, then erect. The root is fibrous. The stem is branched, tapering below, many-flowered, erect, hollow, furrowed. The leaves are egg-shaped, lance-shaped, the lower long-stalked, egg-shaped or heart-shaped, the upper stalkless, clasping, oblong. The plant is hairless. The flowers are small, yellow, the petals little longer than the sepals. The flower-stalks are furrowed. While the flowers of R. flammula are 3/4 in. in diameter, those of this species are 1/4 in. The achenes are small, hairy, granulate, obliquely egg-shaped, margined, with a short terminal point or style. The plant is 6-10 in. high, flowering between June and August, and is a herbaceous annual.

1905 Pratt
10. Serpent's-tongue Spearwort (R. ophioglossifolius). - Annual, erect, smooth or slightly hairy, the lower leaves stalked, broadly egg-shaped or heart-shaped. Its slender stem is from six to twelve inches long, branched and hollow; at first somewhat trailing, then erecting itself to flower. It bears numerous small yellow flowers, about a quarter of an inch across, from June to August. The only British habitat of this species is the marshes of southern Hampshire; formerly it was also found in Jersey.

Celery-leaved Buttercup (R. sceleratus)

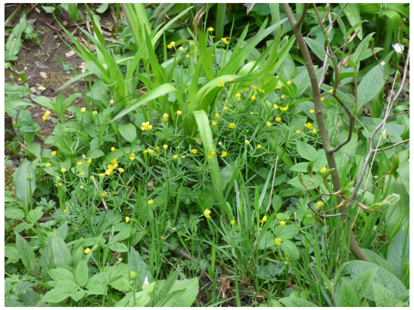
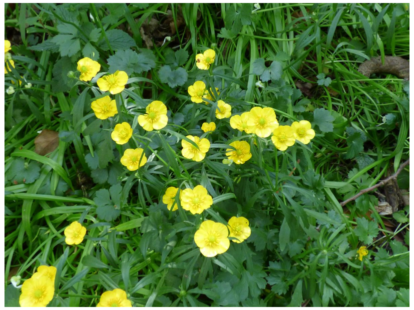
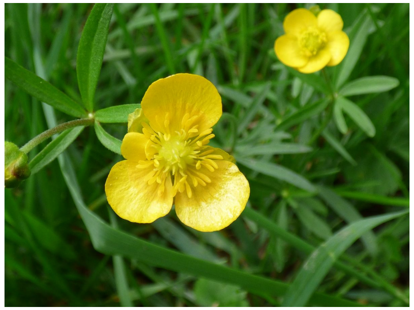
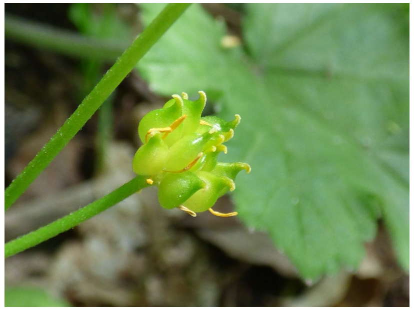
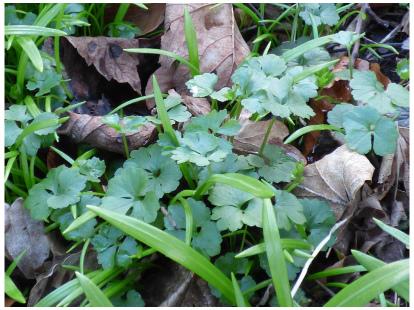
1919 BWF vol. 6, p101 (pdf p127)

Celery-leaved Crowfoot (Ranunculus sceleratus, L.). - The habitat of this species is ditches, muddy places, and ponds. The habit is erect. The stems are robust, succulent, hollow. The root is fibrous. There are submerged leaves which are different to the aerial leaves. The radical leaves are stalked, divided into three, with blunt, scalloped lobes, shining, smooth, the upper ones slightly hairy, and linear. The flowers are small, pale-yellow. The calyx is turned back, the sepals hairy. The honey-glands are round, open, bordered all round, not above. The achenes are smooth, oblong, numerous, wrinkled, furrowed one side. There is a very small style. The plant is 8-24 in. in height, and flowers between May and September. It is a herbaceous perennial.

1905 Pratt

13. Celery-leaved Crowfoot (R. sceleratus). - Leaves smooth, cut into oblong segments; root-leaves on stalks; stem hollow, juicy; carpels collected into an oblong head. This plant, which is very common in watery places, by the sides of pools and ditches, is usually about a foot and a half or two feet high. It flowers in June, and the blossoms are of pale yellow, and very small size. It is one of the most acrid of the crowfoots, and in former times was in frequent use as a blister; but it is a very unsafe application, for it readily causes a wound, which will not so easily be healed. A friend of the writer's, who had wandered by a stream's side, and carried away thence a large nosegay of forget-me-nots, and yellow flag-flowers, and meadow-sweet, had placed among them a quantity of this Crowfoot; wearied with the heat, he lay down on a grassy bank, placing his nosegay near him, that he might enjoy its odours. In the course of a restless slumber, however, his cheek lay upon the flowers, and he was awakened by a tingling sensation, which he at first attributed to the stings of some of those insects which hover over the waters. He soon discovered that it had been caused by this plant, and a redness and irritation remained on one side of the cheek and neck for some hours afterwards, notwithstanding that means were used to allay it. Burnett says that even carrying this plant in the hand will cause inflammation; yet the shepherds of Morlachia, notwithstanding the acridity of its leaves, eat them when boiled. The distilled water procured from this crowfoot is intensely acrimonious, and, when cold, deposits crystals which are inflammable. The plant is found in almost every part of the world, and has been seen very far north, growing by the streams. Another water-side species, termed the Frigid Ranunculus, has been found in some of the highest latitudes yet explored. Dr. Sutherland, when in the Polar expedition in search of Sir John Franklin, saw this beautiful little plant growing on the shores of Assistance Bay, a spot which he and his companions had to reach by walking over ice.

Goldilocks Buttercup (R. auricomus)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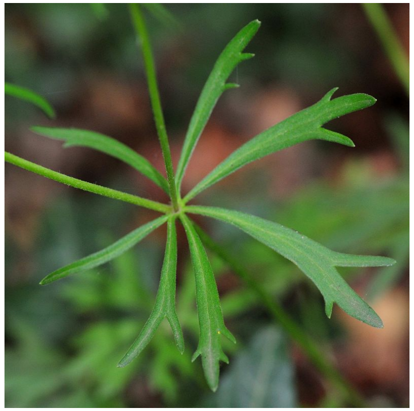
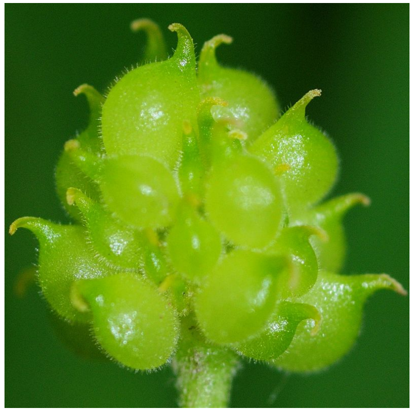
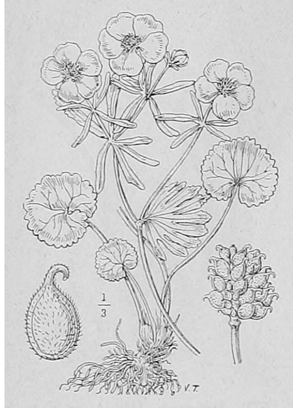
				

1919 BWF vol. 3, p11 (pdf p33)
Goldielocks (Ranunculus auricomus, L.)
No deposits have as yet yielded achenes of this plant. It is distributed over the Arctic and Cool Temperate Zones, in Arctic Europe, N. and W. Asia, to the Himalayas. Goldielocks is absent from Monmouth, and in Wales only occurs in Glamorgan, Denbigh, and Anglesea. It is absent from S. Lincs and the Isle of Man. In Scotland it is not found in any of the following counties:- Dumfries, Wigtown, Peebles, Selkirk, Linlithgow, Banff, Elgin, Westerness, Main Argyll, W. Highlands or N. Highlands, or Northern Isles. In the Highlands it is found at an altitude of 1600 ft., and in S. and W. Ireland it is rare.
The Goldielocks is a shade-loving hedgerow and woodland plant, which appears to delight in sandy soil where also some humus is present, and clusters in patches of a yard square beneath the shelter of a bank. There it forms a rich contrast with the surroundings with its yellow (rarely perfect) petals and delicate foliage. It is fond of ground where there are inequalities of the surface, as well as banks, on which it often grows.
This is one of the terrestrial Crowfoots, with a smooth, shiny stem, with divided leaves, having the lower leaves broadly lobed and the upper more divided, with an erect flowering stem, the flowers being central, and the general shape is pyramidal, as in most plants with radical leaves on long stalks, rounded or kidney-shaped, and more or less leafless flowering stems. A feature of this species is the variation in the type of the leaves at the base. The petals are usually imperfect, and the honey-gland has no scale. The sepals are constantly as yellow as the petals. The carpels, seated on raised points of the receptacle, are downy. Unlike some other Crowfoots the root is fibrous.

The stem is 1 ft. to 15 in. in height. Goldielocks flowers from April to May, before the trees are in bud or leaf. The plant is perennial, deciduous, and herbaceous.

The nectary assumes a great variety of forms. The corolla is seldom regular, and some petals are usually wanting or functionless, some or all being stunted, while the sepals have a bright yellow flat portion, and partly or wholly take the place of petals. The sepals may be fringed. The honey-glands are at the base of the modified petals. Some petals are reduced to honey-secreting cavities, as in Winter Aconite, and all sorts of transitions to this stage may be found. In the more perfect petals the underside of the triangular base of the petal has a thickened border each side, which fuses below and forms a pit for the honey where they meet.

In the more perfect petals, too, honey is secreted by two small pits, to the right and left, on the broader thickened margin. In very stunted petals on the inner side of the base of the two laminae or blades two honey canals, separated by a fold, are deeply sunk. There are two types of pollen. In some intermediate forms no honey is secreted. Hymenoptera (Apidae, Formicidae), Diptera (Syrphidae, Muscidae), Thysanoptera (Thrips) visit it.

The fruits of Goldielocks are dispersed by the wind, and the achenes are downy and adapted for wind dispersal. This plant is partly a humus-loving plant requiring a humus soil, derived from ordinary humus, and grows best in peaty loam, being found on Precambrian, Carboniferous, Triassic, and Liassic rock soils.

Peronospora ficariae is a fungus which infests this plant. It flowers early, and no insects feed on it.

The name auricomus is from the Latin aurum, gold, and coma, hair. Goldielocks is called Buttercup, Wood Crow-foot, Goldylocks.

Essential Specific Characters:-

7. Ranunculus auricomus, L. - Leaves divided, radical leaves reniform, 3-7-partite, flowers yellow, petals 3-7, usually imperfect, petals with nectary without a scale smooth, carpels downy, receptacle tuberculate.

1914 Boulger, vol. 2, pdf p68

GOLDILOCKS.

Ranunculus auricomus Linne.

IN the early days of April, before the majority of our trees have unfolded their leaves, many a dry copse or bank is enlivened by the bright green and gold of this unpretentious Buttercup. It can stand some shade or much sun, and rejoices in a moist loam rich with leaf-mould: it can hold its own among the young grass of spring, with Primroses, Lady's-smock, and Yellow Archangel; but it rarely occurs in actually marshy ground. From the situations in which it is often found it has been called the Wood Crowfoot. Tragus, Caspar Bauhin, and Morison were unquestionably justified in terming it Ranunculus pratensis, one of the meadow species, that is; but Fuchs, John Bauhin, and Ray showed, perhaps, more discrimination in styling it sylvestris, sylvaticus, or nemorosus, a native, that is, of woods or groves.

The exceptional absence of any acridity in its juice earned for it from several of these early writers the additional descriptive epithet dulcis, or sweet.

Species of Ranunculus, such as R. Ficaria, R. Lingua, or R. Flammula, with undivided leaves cannot be appropriately termed Crowfoots; but this species in this respect resembles the Buttercups rather than the Spearworts.

It is a perennial with a short rhizome giving off copious fibrous rootlets and long-stalked, rounded radical leaves, more or less deeply three- to seven-lobed. The lobes are obtuse, wedge-shaped, crenate or variously cut, and generally downy. The aerial stem branches and rises erect to the height of about a foot; and both it and its flower-bearing branches are round and not furrowed, and very often slightly downy with adpressed hairs on their upper parts. They bear leaves very different from those springing from the ground, being sessile and deeply divided into three or more spreading narrow linear segments.

The freely-produced blossoms are sometimes three-quarters of an inch in diameter, and the pale yellow colour of the calyx, and sometimes of the upper part of the flower-stalk, adds to the general yellow effect, and has thus secured for the species the specific name auricomus, from the Latin aureus, golden, and coma, hair, and its literal seventeenth-century translation Goldilocks. The sepals spread outwards but are never reflexed: they are downy and often fringed with hair, and are said to be more developed and more petaloid in texture when the petals are defective. The petals may be absent altogether, which is, perhaps, the distinctive character of what has been termed the variety depauperata; but though, if present, the individual petals are larger and brighter yellow than the sepals, we do not remember ever to have seen a blossom in which all five petals were present and equally fully and perfectly formed. There is normally a single nectariferous gland at the base of each petal, without the scale which in most species of Ranunculus protects the honey. As we said when speaking of the Winter Aconite, however, a large series of aberrant forms of petal have been described in this species, with one or two scale-like processes, often adherent to the base of the petal, and sometimes with two honey glands, the whole series approximating to the tubular honey-secreting petal that is normal in Eranthis. It is stated by Edgeworth that the stamens in this plant produce two different kinds of pollen; but neither details nor explanation were given, so that it is a point as to which further information would be of interest.

A remarkable structural character is the presence of little cylindrical tubercles upon the floral receptacle which serve as stalks to the achenes. These last are compressed and downy, are surmounted by slender, tapering, hooked styles, and form collectively globose heads. The flowers are visited by a variety of insects, bees, flies, beetles, and moths; but may also be sometimes self-pollinating.

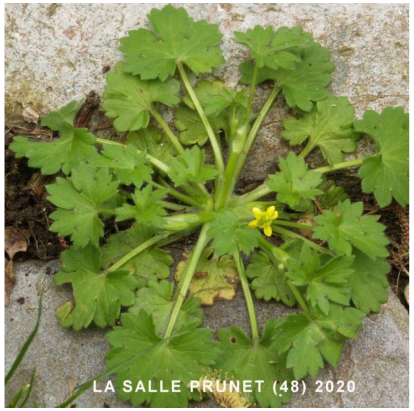
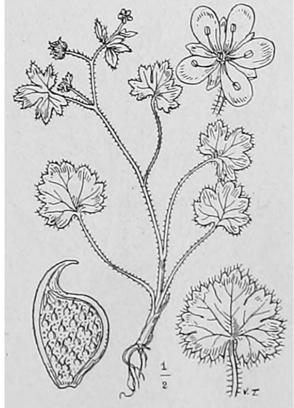
With much the same general geographical range as Ranunculus Lingua, this species is more widely and more generally diffused in the British Isles, having been recorded from eighty-seven of Watson's 112 counties and vice-counties. At the same time, common as it is, its flowers being smaller than those of the ordinary Buttercups (R. acris, R. repens, and R. bulbosus) and its petals presenting the curious defectiveness which suggests a malformation or a poor specimen, Goldilocks does not often enter into the composition of a nosegay of wild flowers. When it does so, its juicy, quickly-grown stems soon collapse, though, like the Buttercups, they revive when placed in the flower-vase.

The popular name Goldilocks was formerly given to the slender hair-like stems of one of our larger mosses, Polytrichum commune Linne. It is locally applied to the Globe-flower (Trollius), and is also a book-name for the rare Composite Chrysocoma Linosyris Linne, otherwise known as Aster Linosyris Bernh., or Linosyris vulgaris De Candolle, being a literal translation of the name Chrysocoma (from the Greek Χρυσὸς, chrusos, golden, and κόμη, kome, hair).

1905 Pratt

12. Wood Crowfoot (R. auricomus). - Leaves smooth, lower ones kidney-shaped, three-lobed, upper ones entire; calyx shorter than the petals; petals unequal in size. Plant perennial. This is a common flower in woods, and much like the meadow buttercup, but the blossoms are not so large, and the mode of growth more straggling. It blooms in April and May, and, unlike the other Crowfoots, is destitute of acridity.

Small-Flowered Buttercup (R. parviflorus)

Pic 1&2 - naturescene.net		Flora Italiana		
				

1919 BWF vol. 6, p88 (pdf p113)

Small-flowered Crowfoot (Ranunculus parviflorus, L.). - The habitat of this plant is fields, banks, roadsides, cornfields, and dry banks. The habit is prostrate. The root is fibrous. The stems and branches are slender, spreading. The leaves are rounded or kidney-shaped, 3-5-lobed, the lobes toothed, the upper leaves oblong, entire, or 3-lobed, with entire, deeply-cut lobes, the lowest entire. The flower-stalks are lateral, opposite a leaf or in the forks, furrowed. The flowers are yellow, with 3-5 small, narrow, oblong petals, the gland with a small scale. The calyx is erect at first, afterwards turned back. The receptacle is hairless. The achenes are small, rounded, with hooked tubercles. The styles are nearly straight, and short. The plant is 3-12 in. long, flowering in May and June, and is a herbaceous annual.

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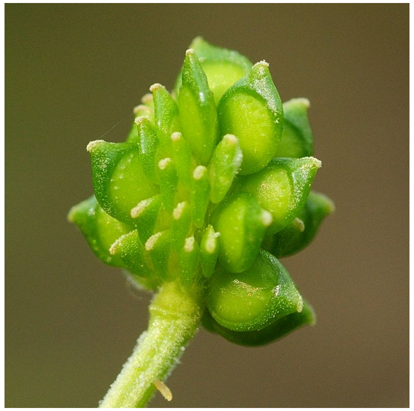
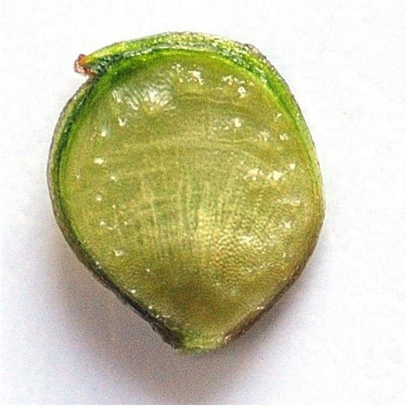
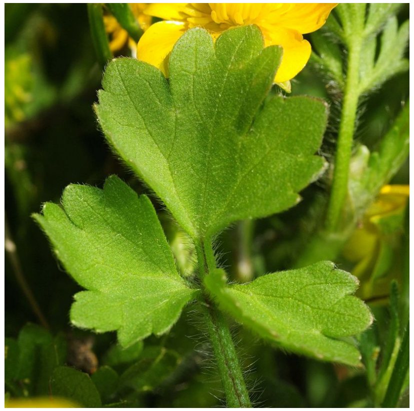
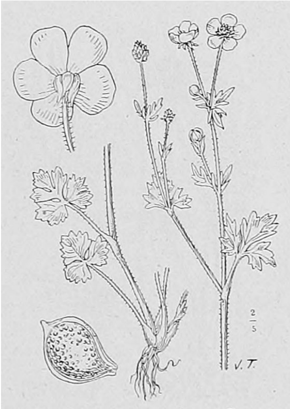
20. Small-flowered Crowfoot (R. parviflorus). - Stem prostrate; leaves hairy, three-lobed, and cut; flower-stalks opposite the leaves; calyx as long as the petals; seeds covered with hooked prickles. Annual. This plant is readily known from the other species by its prostrate stem, and little yellow blossoms, which are to be found from May to August, on dry banks in England sparingly, in Ireland rarely, and in the Channel Islands; but in Scotland it is not known to occur. One or two of its petals are often wanting.

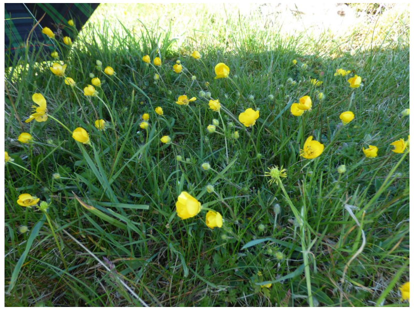
Hairy Buttercup (R. sardous)

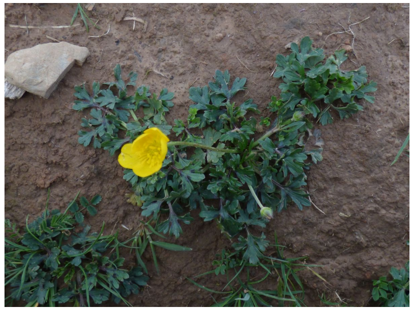
From Lilam Rooney's flikr (four pics)	this and nex show the tubercles around the fruit edges			
				

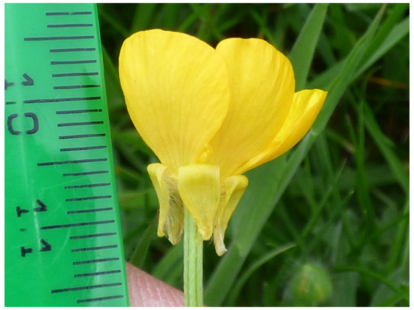
1919 BWF vol. 6, p120 (pdf p146)
Hairy Crowfoot (Ranunculus hirsutus, Curt.). - The habitat of this plant is roadsides in places where water lies stagnant, wet meadows, cultivated fields, waste land, and cornfields. The plant is erect, with more or less the rosette habit. The root is fibrous. The stem is erect, many-flowered. The radical leaves have 3 stalked, cut segments divided into 3 lobes nearly to the base, the upper with narrow, acute segments. The flowers are pale yellow, the sepals turned back, hairy, the petals with a scale over the gland. The receptacle is hairy. The flower-stalks are furrowed, with spreading or turned-back hairs. The achenes are tubercled along the border, broad, flattened, round, with a short, curved beak. The plant is 6-15 in. high, flowering from June to October, and is a herbaceous annual.

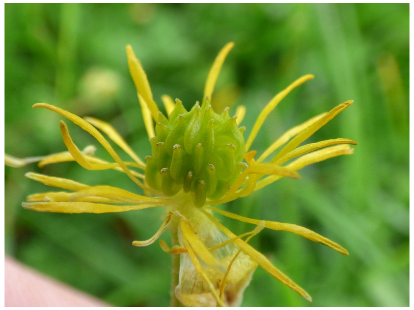
1905 Pratt
18. Pale Hairy Buttercup (R. hirsutus). - Calyx reflexed; stem upright; many-flowered, hairy; leaves three-lobed, or three-cleft; lobes obtuse, cut; root fibrous. Annual. This plant is common in waste places, having paler flowers than the other buttercups, and it is smaller than either of them. The whole plant is of a paler green than either of the three species last named. It is in flower from June to October, and is sometimes found with double blossoms.

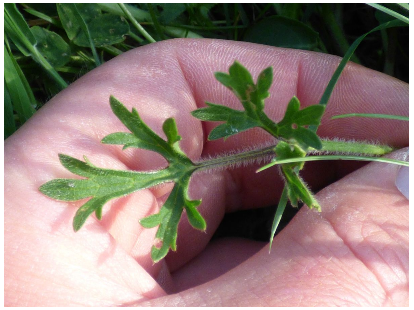
Bulbous Buttercup (R. bulbosus)











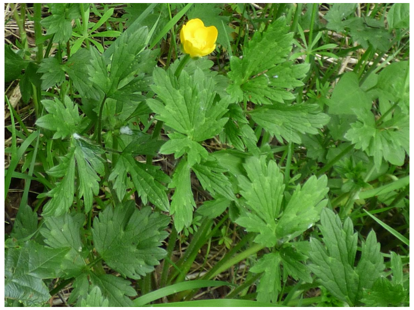
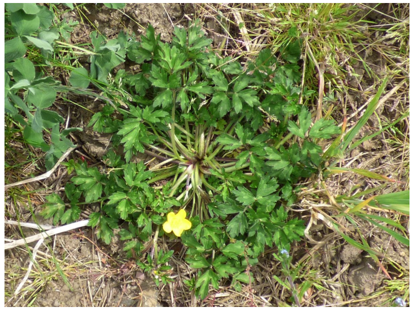
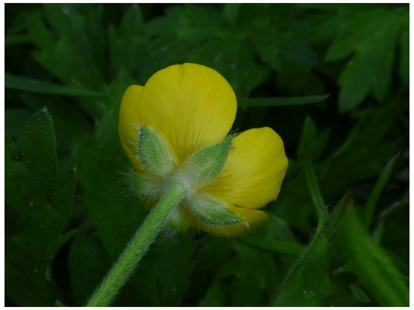
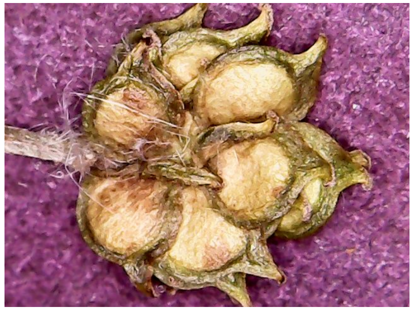
1919 BWF vol. 6, p3 (pdf p29)

Bulbous Crowfoot (Ranunculus bulbosus, L.). - The range of this buttercup is the same as that of the Creeping Buttercup. It occurs in all but six of the counties of the British Isles. In some meadows this form is the dominant buttercup early in the year, studding the earth profusely with its golden cups. It is found indifferently in both meadows and pastures. The habit is of the rosette type. The stem is bulb-like at the base, the leaves are chiefly radical leaves, the stems erect. The flower-stalks are furrowed and smooth, the sepals turned back. It flowers in May, and is perennial. The plant is a foot high. The pollination and dispersal are as in the last, the anthers ripening first, the honey-glands being at the base of the petals. The plant is a sand-lover.

1905 Pratt

14. Bulbous-rooted Crowfoot (R. bulbosus). - Calyx reflexed; flower-stalks channelled; leaves cut into three variable leaflets, which are three-lobed, or three-partite, and cut; root bulbous. Perennial. This flower, which grows on a stem about a foot high, is one of the three species commonly called Buttercups. It is the kind which is earliest in blossom, and which in May often embroiders with gold the grassy meadow. "The daisy and the buttercup, For which the laughing children stoop A hundred times the livelong day, In their rude romping summer play, So thickly now the pasture crowd In gold and silver sheeted cloud, As if the drops of April showers Had woo'd the sun and changed to flowers." The three kinds of buttercup are much alike; but this may at once be known by the sepals, which turn downwards. In old times it was called St. Anthony's Turnip; but if that pious hermit, whose name it bears, ever dined on its white hard roots, he must have dried them well first in the sunshine, to remove their acridity. In their fresh state they are not only pungent to the taste, but are emetic in their properties. Their expressed juice is said to cause sneezing, and it was formerly used for raising blisters, especially in cases of gout. The acrimonious principle is in some measure dispelled by drying, and is altogether lost if the roots are boiled. Swine are very fond of them, and will dig them up in the pasture.

Creeping Buttercup (R. repens)

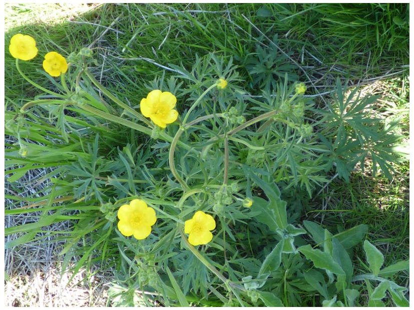
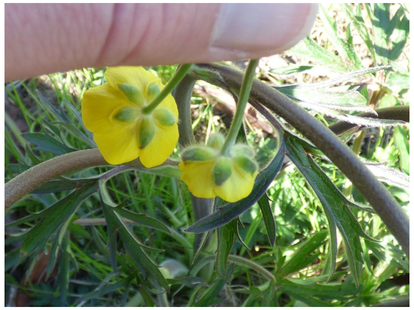
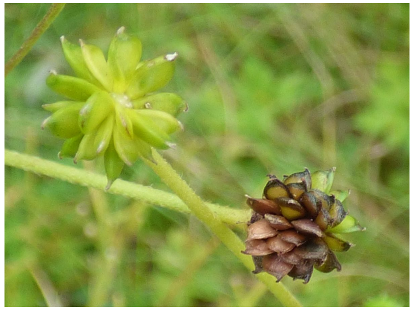
1919 BWF vol. 6, p3 (pdf p29)

Creeping Buttercup (Ranunculus repens, L.). - This common buttercup is found in Arctic Europe, parts of Asia, Africa, and has been introduced into America. It is found in every part of the British Isles, up to nearly 3000 ft. in Scotland. The usual habitat is wet meadows, and almost every roadside ditch contains it, whilst moist open parts of woods also form a suitable spot for it. The habit is procumbent or trailing. The stem is provided with creeping-stoles or underground runners, from an erect main stalk, with fibrous roots. It is usually found in patches for this reason. The essential characters are the furrowed flower stalk, and the erect sepals. The receptacle is hairy. The lower part of the stem is often purple. It is about a foot high, and is a perennial, flowering in May till August. The pollination is like that of the Upright Meadow Buttercup (q.v.). The seeds are dispersed like those of the latter. The soil is a loamy clay. The plant is poisonous, being bitter, causing blisters.

1905 Pratt

15. Creeping Buttercup (R. repens). - Calyx spreading; flower-stalks furrowed; scions creeping; leaves divided into three leaflets, which are three-lobed, or three-cleft, and cut. Perennial. This plant, which the lover of flowers admires for its glossy cup, is a troublesome weed to the farmer, running all over the pasture by means of its creeping shoots, which take root wherever a leaf is produced. It is most abundant everywhere from June to August, blooming on, in shady places, as gardens and churchyards, till nearly winter. As it occurs in so many soils and situations, it assumes a great variety of appearances. When growing by the side of a river or on a marsh, it attains a height of three or four feet, with a stem sometimes as thick as a man's finger; whereas on a barren field its stem is not larger than a wheat-straw. Its creeping roots, however, always characterise it, even when in gardens. Cattle reject it as food; but, like all the species, it loses its acridity in drying, and makes good hay. The Buttercup has several old English names, some of which, as King-cup, are retained in country places. Gold Cups and Gold Balls are names now almost forgotten; and if this flower is the "tufted crow-toe," which Milton wreathes in his garland for "Young Lycidas, that hath not left his peer," then one of its old names is retained in the Crowfoot of modern days. The French call the buttercup Bouton d'or, and it is the Pie corvino of the Italians. The Germans term it Hahnenfuss. Ben Jonson calls these flowers King-cups.

Meadow Buttercup (R. acris)

1919 BWF vol. 2, p7 (pdf p29)
Upright Meadow Crowfoot (Ranunculus acris, L.)

The deposits in which seeds of this species have been found are post-Roman. It occurs in the Arctic and Cool Temperate Zones in Arctic Europe and N. Asia, and has been introduced into America. It is found in every part of Great Britain, as far north as the Shetland Isles, and up to a height of 4000 ft. in the Highlands of Scotland. It is common in Ireland and the Channel Islands.

Every meadow, whether it be upland or lowland, dry or wet, nourishes a goodly number of individuals of the tall-flowered, upright-growing Crowfoot, which stands out in such contrast to the lowlier grass stems and leaves around. Owing to its acrid properties it is usually avoided by cattle, hence this marked contrast. As a rule it likes flat expanses best, and as far as experience goes it is more uniformly dispersed over dry soils, being thus a xerophile.

The Upright Meadow Crowfoot is similar in habit to Goldielocks, but is taller. There are few flowering stems, and the leaves are chiefly at the base, lying close to the ground, and are usually little variable but much divided. The tall, erect stems distinguish it from the other species of buttercup.

The root is fibrous, but more robust than that of Goldielocks. The flowering stems are unfurrowed, whereas in the Bulbous Crowfoot they are furrowed. The long flowering stems, which are downy, and the finely-divided root-leaves help to distinguish it.

The sepals are spreading, the honey-gland is provided with a scale, and the carpels are smooth.

This buttercup grows to a height of 3 ft., flowers from April to September, and is a deciduous, herbaceous, perennial plant, having no stolons.

As soon as the flower is open pollen is discharged by the anthers, commencing from the outside. The stigmas are at this stage not yet mature; the anthers open along their edges, and on ripening turn outwards. Bees dust themselves with pollen, carry it off, and deposit it elsewhere on other plants. The stigmas are mature before the inner stamens have shed all their pollen, and self-pollination often takes place by means of small insects crawling over the flowers.

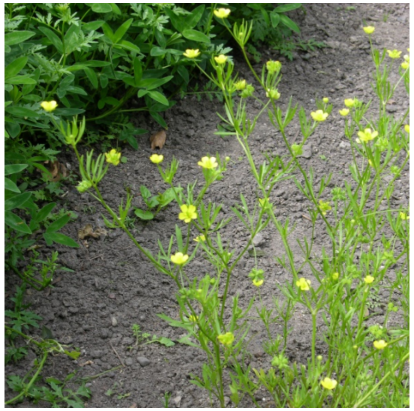
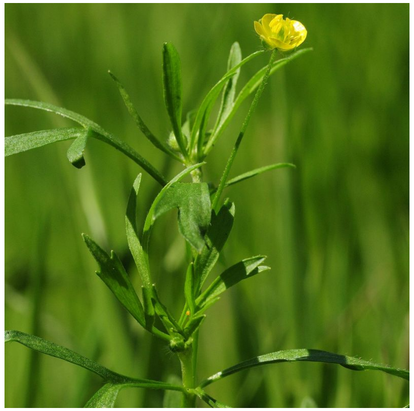
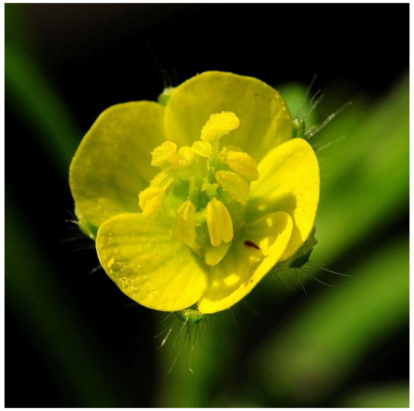
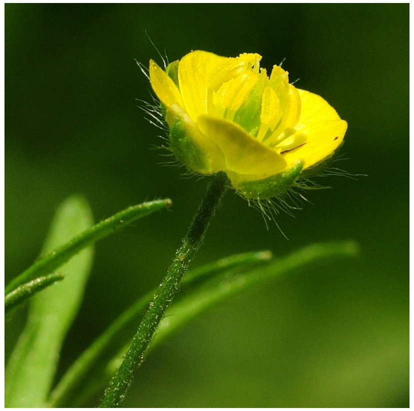
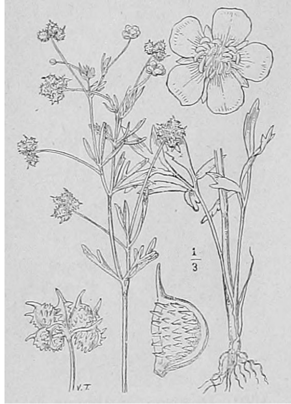
The inner stamens often touch the stigmas. Larger insects bring about cross-pollination if they go from a young to an older flower. The petals secrete the honey. The female flower may occasionally be on a different plant, though as a rule the flowers are complete. Diptera (Empidae, Syrphidae, Muscidae), Coleoptera (Nitidulidae, Dermestidae, Buprestidae, Mordellidae, Oedemeridae, Cistelidae, Cerambycidae, Chrysomelidae), Hymenoptera (Tenthredinidae, Sphegidie, Vespidae, Apidae), Lepidoptera - Small Heath (Satyrus (Coenonympha) Pamphilus), Small Copper (Chrysophanus (Polyommatus) Phlaeas), Burnet Companion (Euclidia glyphica) - visit it.

The fruit is dispersed by its own mechanism. The achenes or fruits are close together and are hooked, and dispersed by the normal splitting and scattering of the fruit. It is also wind-dispersed, and dispersed by animals from the effect of the wind upon the long flower-stalks, and by the agency of passing animals. The plants being bitter to the taste are therefore left standing.

It is largely a sand plant, subsisting usually on a sand soil derived from sandy formations in which there is a sandy loam.
The fungus Etoloma microsporum forms round or spindle-shaped swellings on the stem and leaves, and Puccinia perplexans infests it, as does Pseudopeziza ranunculi. The beetles Prasocuris marginella, a hymenopterous insect, Monophobius albipes, and a fly, Phytomyza flava, live on it.
The Latin acris refers to its bitter properties. It is also called Bachelor's Buttons, or Bouton d'or [Gold Button] in French. The English names are Baffiners, Bassinet, Blister-plant. Bolt, Butter Creeses, Carlock-cups, Clovewort, Crawfoot, Crazy, Crowflower, Crowfoot, Eggs-and-Butter, Gilcup, Gold Crap, Gold Cup. Gold Knobs, Yellow Gowan, Guilty-cup, Horse Gold, King-cup, King's Knob, Paigle, Yellow Caul, Yellow Cups.
It is called blister-plant, because used in Lincolnshire by the "herb-women" for blisters. The common names buttercup and butterflower are said to be due to the supposed yellow colour of butter from cows eating them, but more probably because of the richness of the meadows where buttercups also grow. In reference to the name Crazy, it is called an insane herb by country folk from an absurd idea that its smell produced madness.
Pliny, in his day, noticed that this plant and other buttercups caused blisters like those caused by burning. It was thus used for removing leprous sores. Caustic preparations are made from them, but the bitterness is lost in drying; hence hay is eaten without blistering being caused. In the fresh state cattle refuse it. It is even said to cause blisters from merely pulling it up.
Essential Specific Characters:-
8. Ranunculus acris. L. -- Stem tall, erect, no bulb, radical leaves much dissected, upper entire, calyx erecto-patent, carpels smooth, glands of nectary with scale, receptacle glabrous.

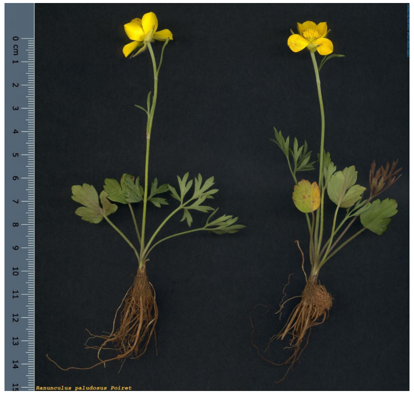
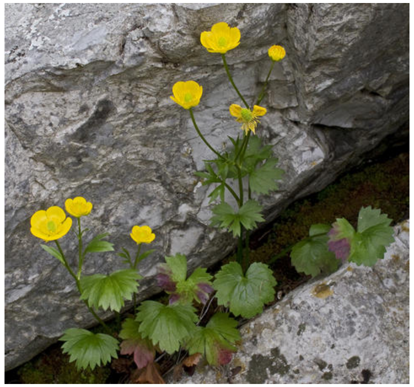
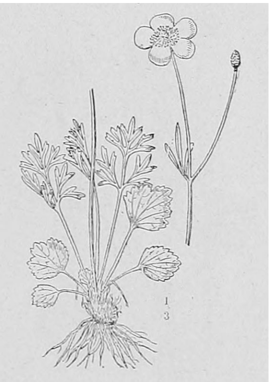
1905 Pratt
16. Meadow Crowfoot (R. acris). - Calyx spreading; flower-stalks rounded, not furrowed; leaves three-cleft, their segments cut into acute divisions, those of the upper leaves very slender. Perennial. This species, which blooms from April to September, is, as its name imports, very acrid. Cattle only eat it when hungry; and Curtis says that if eaten by them in any quantity it will blister their mouths. He adds that he blistered his own hand by gathering it. The root of this species is long and fibrous; and this buttercup is common in meadows, pastures, and mountainous situations. The common garden flower, with flat yellow rosettes, called Bachelor's Buttons, is a variety of this upright Meadow Crowfoot.

Corn Buttercup (R. arvensis)

biopix.com (N Sloth)	Lilam Rooney's flikr (all three)			Flora italiana
				

1905 Pratt
19. Corn Crowfoot (R. arvensis). - Calyx spreading; stem erect, many-flowered; leaves three-cleft, the lobes generally again divided into three segments. Annual. This is easily known from all the other species, by its large prickly carpels. The flowers are small, and pale yeiiow. It is one of the most poisonous of its tribe, and is said to be very injurious to cattle, if, when pressed by want, they eat it. As it is not a plant of the pasture land, however, this does not often occur; but sheep have on some occasions been killed by feeding on it. M. Bruynon, who tried some experiments with it, found that three ounces of its juice killed a dog in three or four minutes. It is in Norfolk called Hungerweed.

Jersey Buttercup (R. paludosus)

herbarivirtual.uib.es	floraofgibraltar.myspecies.info (Leslie Linaries)	Flora italiana		
				

1919 Haunts vol. 6, p88 (pdf p113)
Crowfoot (Ranunculus chaerophyllus, L. = R. flabellatus, Desf.).- The habitat of this species is hedgebanks and dry banks. The habit is erect. The root consists of short, egg-shaped knobs and fibres. The stoles are slender with small scales which give rise to a new plant. The stem is generally simple, slender, swollen below, silky, hairy, with tuberous offsets. The leaves are hairy, 3-foliolate. The radical leaves are 3-lobed, with 3~7 divisions. The stem-leaves are 1-2, with linear segments. The flowers are bright-yellow. The receptacle is smooth, oblong. The calyx is hairy, spreading. The flower-stalks are furrowed. The achenes form a head, and are hairy, flattened at the border, acute, dotted, oblong, cylindric, numerous, rounded, with an acute beak, rough, small. The plant is 4-12 in. high. It flowers in May, and is a herbaceous perennial.

1905 Pratt
17. Chervil-leaved Buttercup (R. chaerophyllus). - Sepals spreading, petals bright yellow; entire flower an inch to an inch and a half across; stem erect, simple, clad with silky hairs, and bearing one flower; base swollen, producing numerous little tubers and stout root-fibres. Perennial. This species is restricted (so far as the British flora is concerned) to Jersey, where it flowers in May. The leaves of the young plants are rounded or wedge-shaped, toothed or lobed, but those of older plants are divided into three leaflets, these again being cut up into wedge-shaped and toothed lobes. The seeds are rarely ripened in Jersey, and propagation is chiefly effected by the separation of the little tubers, as in the case of R. ficaria.

Taxonomic Names

Src: BSBI Maps/List

Caltha L. Marsh-marigold
Caltha palustris L. Marsh-marigold
Caltha palustris subsp. palustris
Caltha palustris subsp. polypetala (Hochst. ex Lorent) Velen. Giant Kingcup
Caltha palustris var. alba (Cambess.) Hook.f. & Thomson
Caltha palustris var. palustris
Caltha palustris var. radicans (T.F.Forst.) Hook.

Eranthis Salisb. Winter Aconite
Eranthis cilicica Schott & Kotschy
Eranthis hyemalis (L.) Salisb. Winter Aconite
Eranthis hyemalis x cilicica = E. x tubergenii Bowles

Ficaria Schaeff. Lesser Celandine
Ficaria verna Huds. Lesser Celandine
Ficaria verna 'Brazen Hussy'
Ficaria verna subsp. chrysocephala (P.D.Sell) Stace
Ficaria verna subsp. fertilis (Lawalrée ex Laegaard) Stace

Ficaria verna subsp. ficariiformis (F.W.Schultz) B.Walln.
Ficaria verna subsp. verna Huds.
Ficaria verna subsp. verna x subsp. fertilis

Ranunculus L. Buttercups
Ranunculus aconitifolius L. Aconite-leaved Buttercup
Ranunculus aconitifolius 'Flore Pleno'
Ranunculus acris L. Meadow Buttercup
Ranunculus acris 'Flore Pleno'
Ranunculus acris subsp. acris
Ranunculus acris subsp. borealis (Regel) Nyman. Meadow Buttercup
Ranunculus acris subsp. borealis var. pumilus Wahlenb. Meadow Buttercup
Ranunculus acris subsp. borealis var. villosus (Drabble) S.M.Coles Meadow Buttercup
Ranunculus arvensis L. Corn Buttercup
Ranunculus auricomus L. Goldilocks Buttercup
Ranunculus bulbosus L. Bulbous Buttercup
Ranunculus bulbosus subsp. bulbosus L.
Ranunculus bulbosus var. bulbosus (Jordan) P.Fourn
Ranunculus bulbosus var. dunensis Druce
Ranunculus cordiger Viv.
Ranunculus creticus L.
Ranunculus flammula L. Lesser Spearwort
Ranunculus flammula subsp. flammula L. Lesser Spearwort
Ranunculus flammula subsp. flammula var. flammula
Ranunculus flammula subsp. flammula var. natans
Ranunculus flammula subsp. flammula var. ovatus
Ranunculus flammula subsp. flammula var. radicans
Ranunculus flammula subsp. minimus (A.Benn.) Padmore
Ranunculus flammula subsp. scoticus (E.S.Marshall) A.R.Clapham
Ranunculus flammula x reptans = R. x levenensis Druce ex Gornall Loch Leven Spearwort
Ranunculus lingua L. Greater Spearwort
Ranunculus marginatus d'Urv. St. Martin's Buttercup
Ranunculus marginatus var. marginatus
Ranunculus marginatus var. trachycarpus (Fisch. & C.A.Mey.) Azn.
Ranunculus monspeliacus L.

Ranunculus muricatus L. Rough-fruited Buttercup
Ranunculus ophioglossifolius Vill. Adder's-tongue Spearwort
Ranunculus paludosus Poir. Jersey Buttercup
Ranunculus parviflorus L. Small-flowered Buttercup
Ranunculus pensylvanicus L.f. Bristly Buttercup
Ranunculus repens L. Creeping Buttercup
Ranunculus repens var. degeneratus
Ranunculus reptans L. Creeping Spearwort
Ranunculus rupestris Guss.
Ranunculus sardous Crantz Hairy Buttercup
Ranunculus sceleratus L. Celery-leaved Buttercup
Ranunculus sessiliflorus R.Br. ex DC.
Ranunculus trilobus Desf.

Trollius L. Globeflower
Trollius europaeus L. Globeflower
Trollius x cultorum

Old Names using Euro+Med PlantBase

References & Further Reading

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To Dos

- Better pics, all local, particularly for